

PHILIPS

SC201C OPEL

MODEL

SERVICE MANUAL

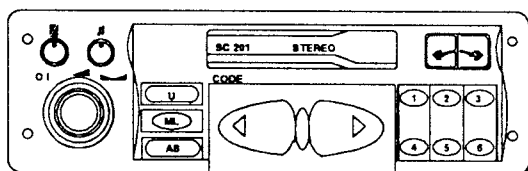
Service Service Service

For repair information of the cassette deck see Service
Manual of Auto Cassette deck P1-10

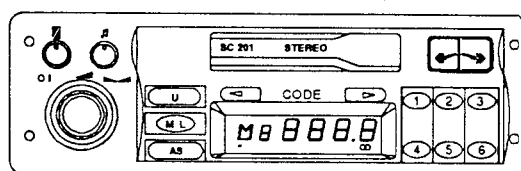
Service Manual

12 V 

22 DC 460/75E



22 DC 460/75



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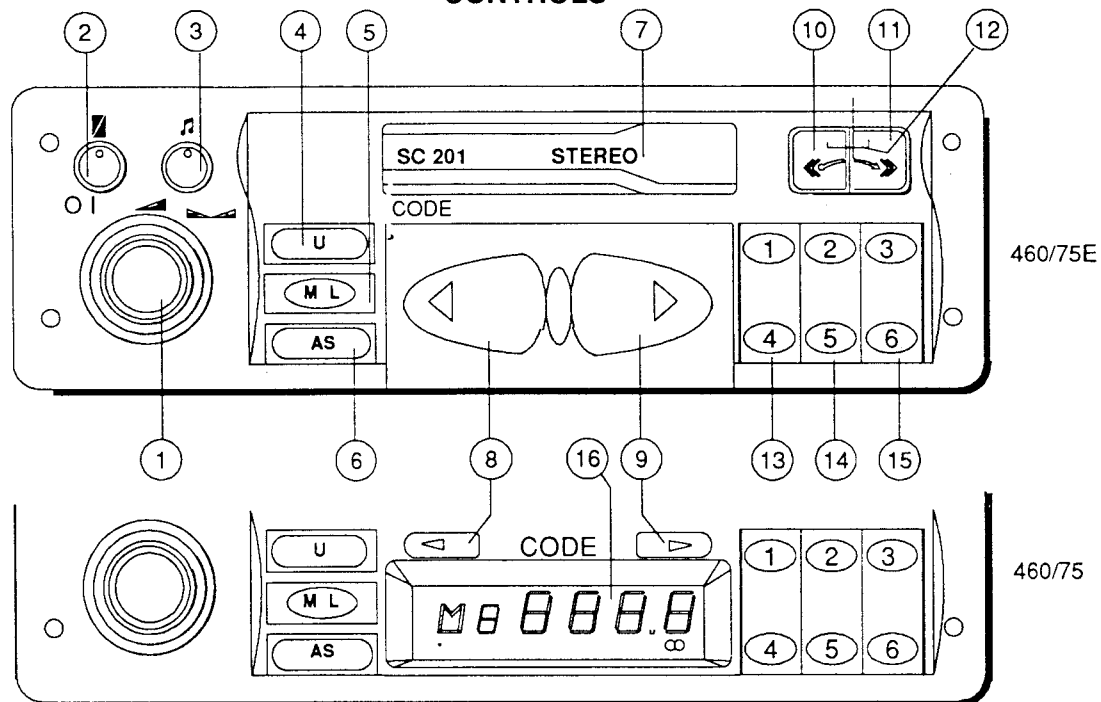
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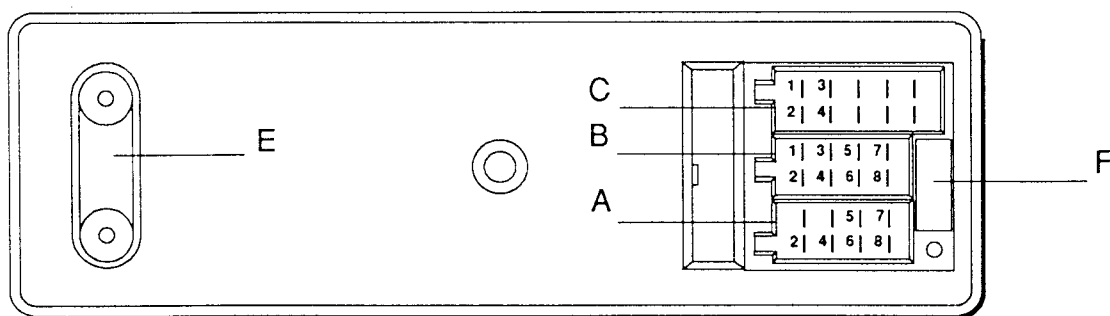
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CONTROLS



- | | | |
|--------------------------|----------------------|----------------------------|
| ① On-Off Vol. Bal | ⑥ Autostore | ⑪ Fast forward |
| ② Fader (pop-out button) | ⑦ Cassette aperture | ⑫ 10 +11 Stand-by - Eject |
| ③ Tone (") | ⑧ Button search down | ⑬ Rocker button preset 1-4 |
| ④ FM Band | ⑨ Button search up | ⑭ Rocker button preset 2-5 |
| ⑤ MW/LW Band | ⑩ Fast rewind | ⑮ Rocker button preset 3-6 |
| | | ⑯ LCD (for 460/75) |

REAR VIEW



A : POWER SUPPLY

- A2 Anti Theft Ground
- A4 Switched Plus
- A5 Switched Aerial
- A6 Controlled Illumination
- A7 Permanent Plus
- A8 Ground

B : LOUDSPEAKERS

- B1 Rear right
- B2 Rear right ground
- B3 Front Right
- B4 Front Right ground
- B5 Front Left
- B6 Front Left Ground
- B7 Rear left
- B8 Rear left Ground

C : EXTERNAL DISPLAY (460/75E)

- C1 Serial Data line
- C2 Serial Clock line
- C3 Bus Ground
- C4 Master Request Line

E : AERIAL PLUG

F : FUSE 5A

22DC460/75.../75E

GENERAL

Power supply : 14.4V DC
Dimensions : 180x150x51 mm

RADIO

LW : 144-288 KHz
MW : 531-1611 KHz
FM : 87.5-108 MHz
IF-AM : 10.7 MHz
IF-FM : 10.7 MHz
Sensitivity 26dB S/R : 35 μ V (LW)
: 30 μ V (MW)
: 4 μ V (FM)
Limitation α -3dB : 15 μ V

CASSETTE

Cassette mechanism : P1-10
number of tracks : 2
Tape speed : 4.76 cm/sec
Wow and flutter : $\leq 0.35\%$
Crosstalk : ≥ 30 dB

AMPLIFIER

Output power : 4 X 5.4 W / 4 Ω
(at D = 10%)
Loudness : AUTO
Tone control
Bass : ± 12 dB at 60 Hz
Treble : ± 12 dB at 10 KHz

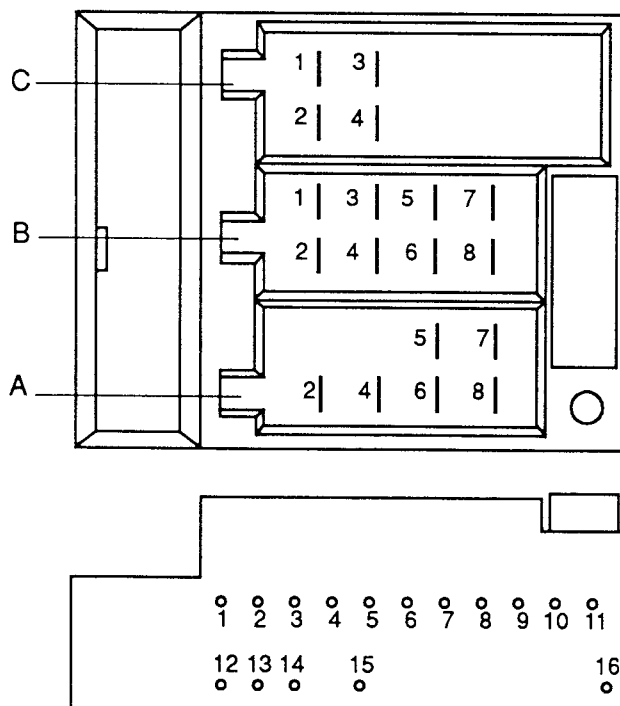
ESD



WARNING

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically.
When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance. Keep components and tools also at this potential.

Connector block wiring diagram



A2 = A8 = 16
A4 = 14
A5 = 13
A6 = 12
A7 = Fuse

B2-3-6-7 = 15
B1 = 6
B4 = 7
B5 = 8
B8 = 9

C1 = 1
C2 = 2
C3 = 16
C4 = 3

Test program - Security code

Display test : Press P4-P6

Display shows all segments (fig a)

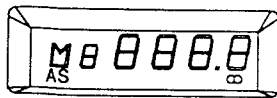
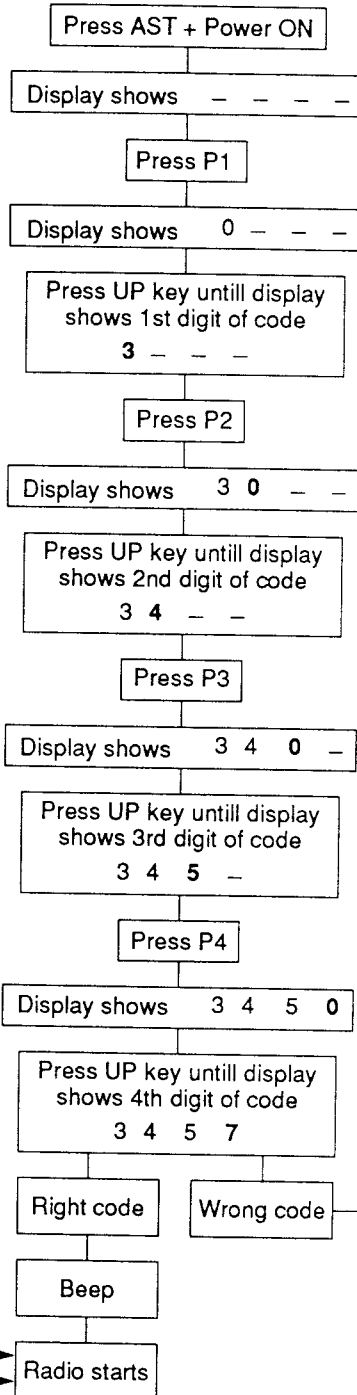


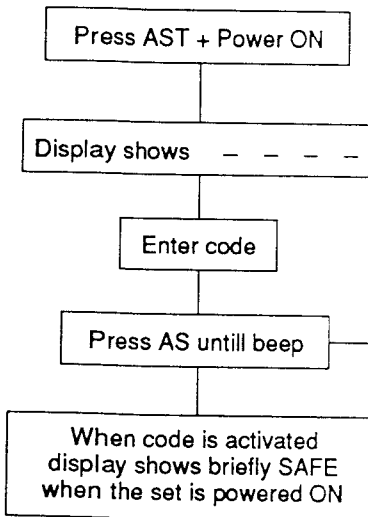
Fig a

Entering a code

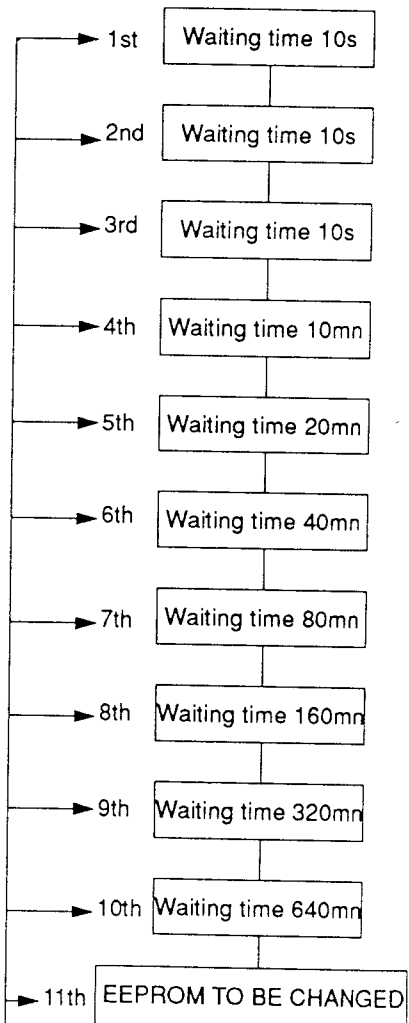
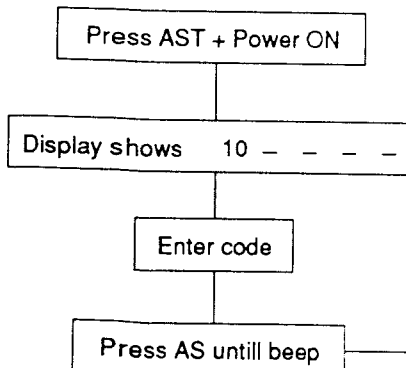
Suppose the code is 3457

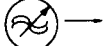
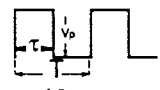
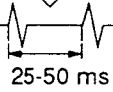


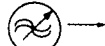
Activating security code :



Deactivating security code :



Check	SK				Setting of controls		
Demodulated FM levels	FM	93 MHz 1 mV $\Delta f = 22.5$ KHz $f_{mod} = 1$ KHz				 160 mV ± 1 dB	
		93 MHz 1 mV $\Delta f = 6.75$ KHz $f_{mod} = 19$ KHz				 45 mV ± 1 dB	
Demodulated AM level	MW	1053 KHz 1 mV 1 KHz, 30% AM				250 mV $\leq$  ≤ 500 mV	
VC FM	FM			87.5 MHz		 > 1.0 V	
				108 MHz		 < 6.5 V	
VC AM	LW			144 KHz		 > 0.8 V	
	MW			1611 KHz		 < 6.5 V	
Search level AM	MW	990 KHz 70 μ V				 0.7V DC ± 50 mV	
I.A.C.	FM	 $\tau = 10$ msec $T = 300$ msec $V_p = 60$ mV					  25-50 ms

Adjustment	SK					
FM oscillator	FM	87,5 MHz unmodulated		P1 87,5 MHz	5103	 0 V ± 50 mV 
FM - IF	FM	87,5 MHz unmodulated		P1 87,5 MHz	5104	 max DC
Quad detector	FM	93 MHz 40 μ V		P2 93 MHz	5150	DC between 11 and 15 6150 ≤ 200 mV
FM - RF	FM	87,5 MHz unmodulated		P1 87,5 MHz	5100	 Max DC
		93 MHz 100 μ V		P2 93 MHz	5102	
		104 MHz unmodulated		P3 104 MHz	3114	
FM limiting sensitivity	FM	93 MHz 125 μ V $\Delta f = 22.5$ KHz $f_{mod} = 1$ KHz		P2 93 MHz	3160	 1.6 V DC ± 0.1 V
Search level AM	MW	990 KHz 30 μ V unmodulated		P1 990 KHz	3083	 0.74V DC ± 50 mV

DC VOLTAGES

7050 TEA6200

1 = 6.8V	11 = 6.7V
2 = 4.0V	12 = 2.9V
3 = 8.5V	13 = 5.0V
4 = 8.4V	14 = 7.3V
5 = 8.4V	15 = 4.7V
6 = 8.1V	16 = 4.7V
7 = 1.0V	17 = GND
8 = 4.0V	18 = 1.0V
9 = 4.0V	19 = 1.2V
10 = GND	20 = 3.1V

7100 LA1177

1 = 2.7V FM	6 = 4.8V
2 = 7.8V FM	7 = 1.5V
3 = 7.4V FM	8 = 4.3V
4 = 1.2V FM	9 = 7.8V
5 = GND	

7150 TDA1596

1 = 8.5V	10 = 4.2V
2 = 1.4V	11 = 3.9V
3 = 4.0V	12 = 0.0V
4 = 3.2V	13 = 0.0V
5 = 3.9V	14 = 4.0V
6 = 4.3V St	15 = GND
7 = 2.8V	16 = 1.8V
8 = 2.2V	17 = 1.8V
9 = 4.2V	18 = 1.8V

7248 TEA5581

1 = 3.4V	9 = 7.6V
2 = 1.5V	10 = 0.5V
3 = 0.7V ST	11 = NC
4 = 0.9V	12 = 3.4V
5 = 0.0V	13 = 3.4V
6 = 2.3V ST	14 = 1.5V
7 = 2.0V FM	15 = 2.1V
8 = 1.7V	16 = 3.4V

7249 IAC7

2 = 2.6V	6 = 7.7V
4 = 3.5V	7 = 8.2V
5 = 4.2V	8 = GND

7250 UPC1228H

1 = 1.4V	6 = 0.9V
2 = 0.8V	7 =
3 = 0.9V	8 =
4 = 7.9V	9 = GND
5 = GND	

7455 UPD1719

1 = GND	24 = 4.5 MHz
2 = 1.1V	25 = 4.5 MHz
3 = NC	26 = GND
4 = 5V	27 = NC
5 = NC	28 = 5V Cass On
6 = 2.2V	29 = 5V
7 = 4.1V	30 = NC
8 = 5V	31 = NC
9 = Keyboard A	32 = NC
10 = Keyboard B	33-37 = 2.6 V LCD
11 = Keyboard C	38 = NC
12 = 4.8V	39 = 2.6V LCD
13 = 0.0V	40 = NC
14 = 3.8V Radio	41-57 = 2.6 V LCD
15 = 4.6V Cass 0.5V Rad Pause	58 = GND
16 = 4.8V Clock	59 = Keyboard 1
17 = 0.0V	60 = Keyboard 2
18 = 4.8V Master Request	61 = Keyboard 3
19 = 4.8V Data	62 = Keyboard 4
20 = 4.8V FM 0.0V AM	
21 = 0.0V ON	
22 = 0.0V Radio	
23 = 4.8V Beep	

7500 ST24C02

1 = GND	5 = SDA
2 = GND	6 = SCL
3 = GND	7 = GND
4 = GND	8 = 5.1V

7650/7651 TDA1519A

1 = 2.0V	5 = GND
2 = GND	6 = 6.8V
3 = 6.9V	7 = 14.4V
4 = 6.8V	8 = 13.6V
	9 = 2.0V

24 = 4.5 MHz
25 = 4.5 MHz
26 = GND
27 = NC
28 = 5V Cass On
29 = 5V
30 = NC
31 = NC
32 = NC
33-37 = 2.6 V LCD
38 = NC
39 = 2.6V LCD
40 = NC
41-57 = 2.6 V LCD
58 = GND
59 = Keyboard 1
60 = Keyboard 2
61 = Keyboard 3
62 = Keyboard 4

7102 BF992

g1 = 4.1V
g2 = 5.8V
s = 4.1V
d = 8.0V FM

7450

e = GND
b = 0.7V
c = 0.0V

7451

e = 4.8V
b = 4.1V
c = 4.8V

7452

e = 4.8V
b = 4.7V
c = 4.1V

7453

e = 4.8V
b = 4.8V
c = 4.1V

7454

e = GND
b = 0.0V
c = 4.8V

7480

e = GND
b = 0.7V
c = 0.0V

7481

e = GND
b = 0.0V
c = 13.7V

7750

e = 8.4V
b = 14.3V
c = 14.3V

7751

e = 8.4V
b = 7.7V
c = 8.2V

7752

e = 4.8V
b = 5.5V
c = 8.4V

7753

e = GND
b = 0.0V
c = 13.6V

7754

e = GND
b = 0.7V
c = 0.0V

7755

e = 13.5V
b = 13V
c = 12.7V

7756

e = 13.5V
b = 12.7V
c = 13.3V

7757

e = GND
b = 0.8V
c = 0.8V

7759

e = 14.3V
b = 14.3V
c = 13.6V

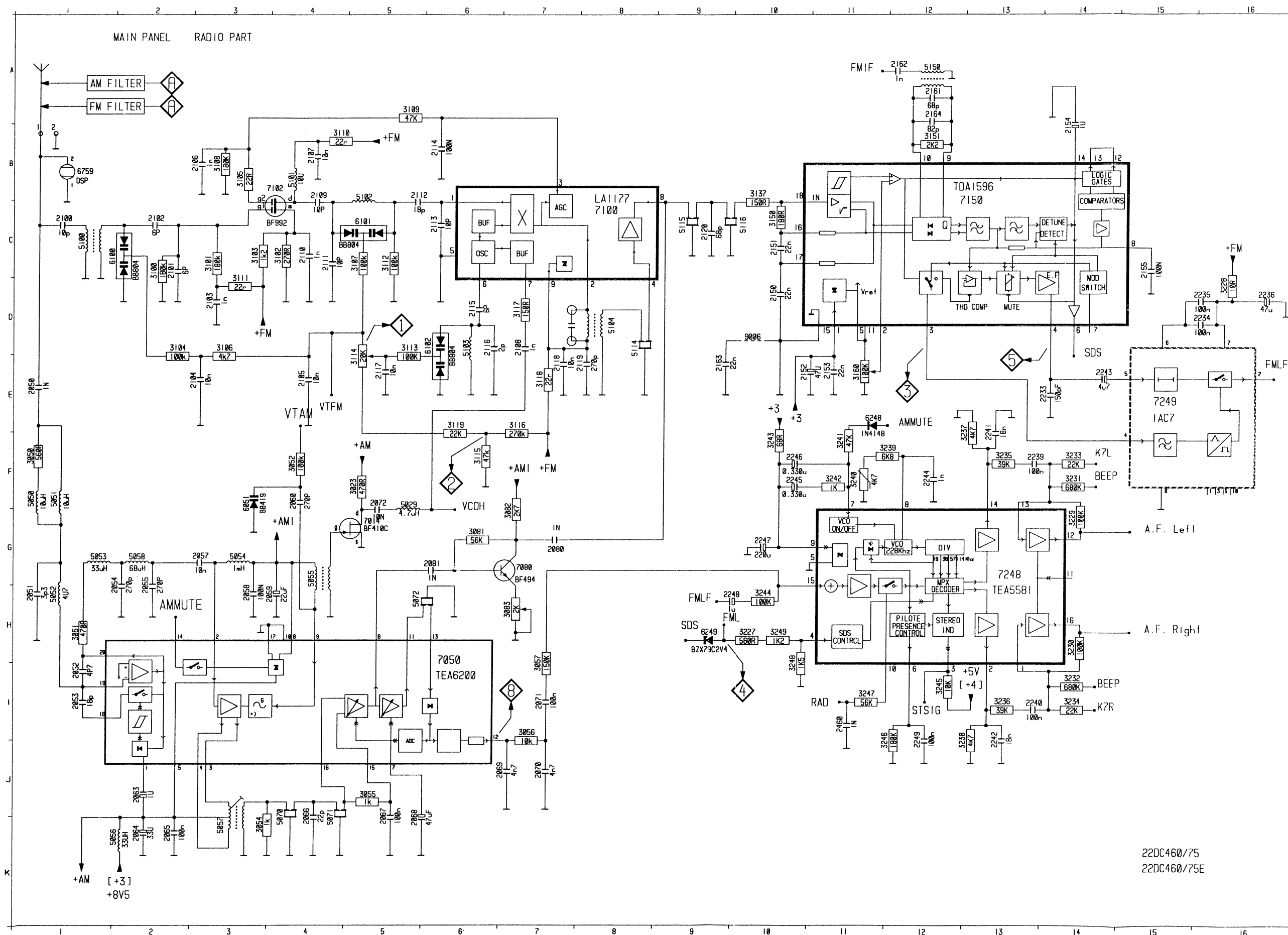
7761

e = 0.8V
b = 1.4V
c = 0.8V

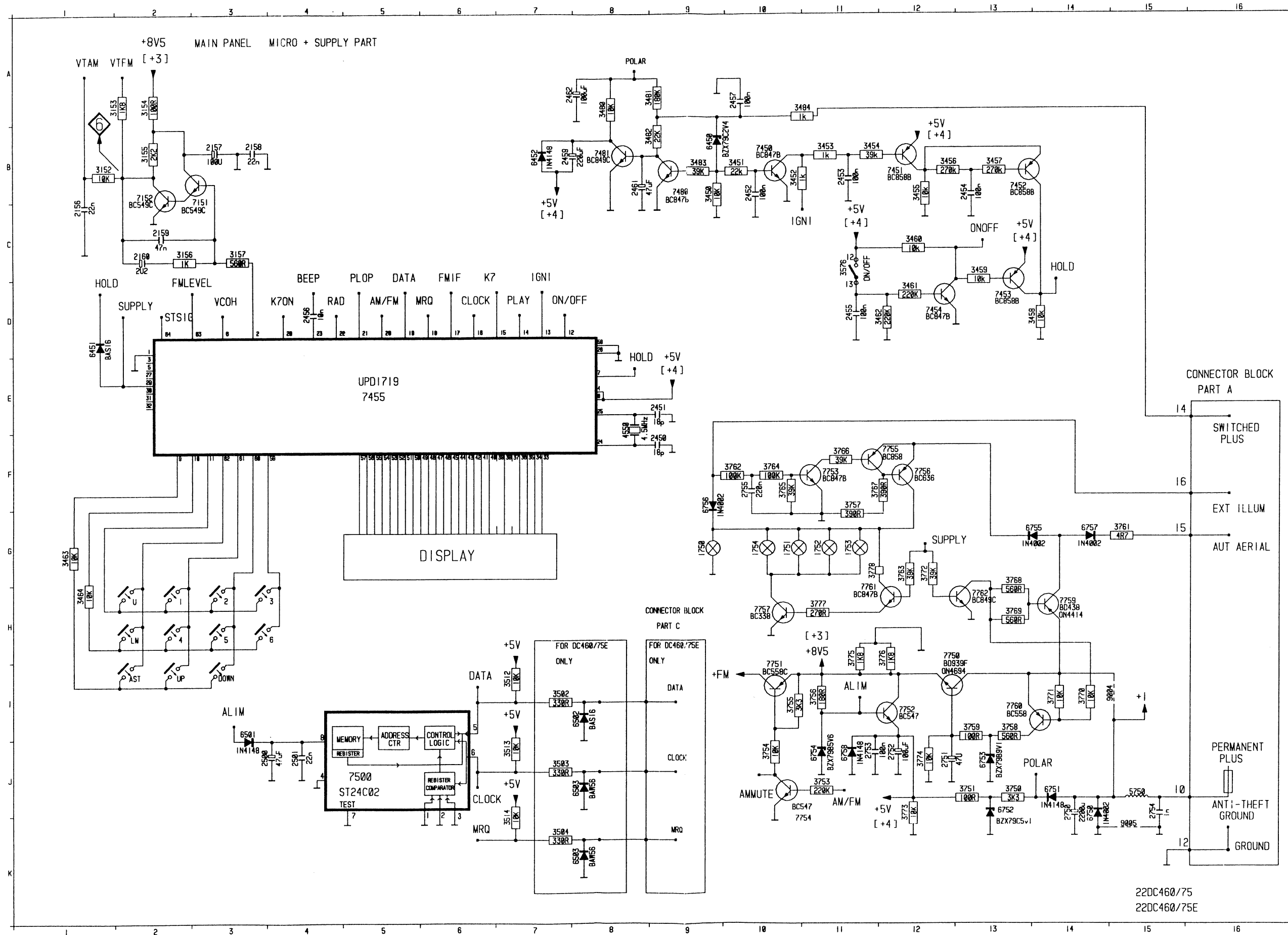
7762

e = GND
b = 0.7V
c = 1.2V

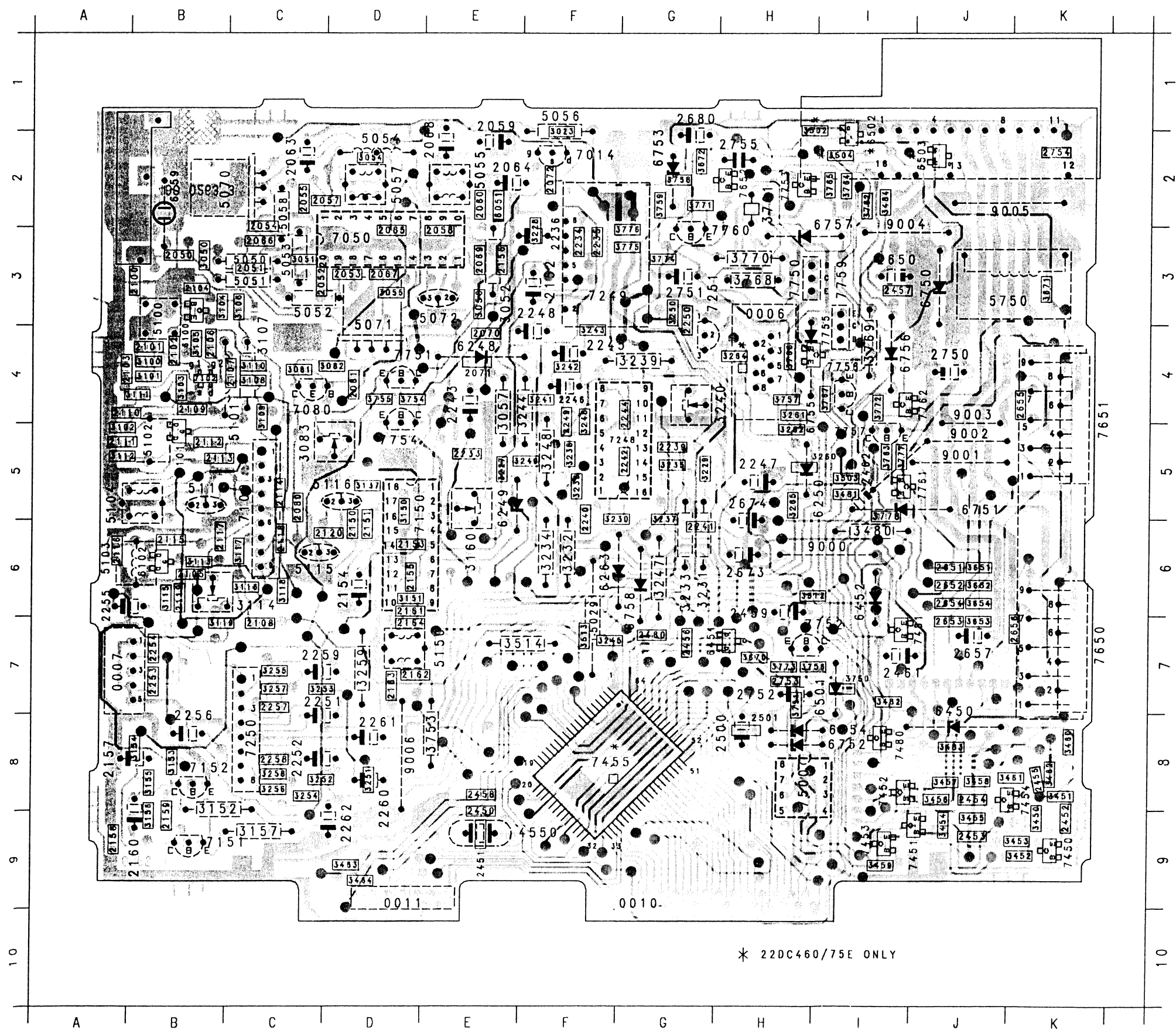
22DC460/75.../75E



2050	E 1	3246	J12
2051	E 1	3247	I11
2052	E 1	3248	H10
2053	E 1	3249	G10
2054	E 2	3250	F11
2055	E 2	3251	E11
2056	E 3	3252	D11
2057	E 3	3253	C11
2058	E 4	3254	B11
2059	E 4	3255	A11
2060	F 1	3256	3257
2061	F 2	3258	3259
2062	F 2	3260	3261
2063	F 3	3262	3263
2064	F 3	3264	3265
2065	F 4	3266	3267
2066	F 4	3268	3269
2067	F 5	3270	3271
2068	F 5	3272	3273
2069	F 6	3274	3275
2070	F 6	3276	3277
2071	F 7	3278	3279
2072	F 7	3280	3281
2073	F 8	3282	3283
2074	F 8	3284	3285
2075	F 9	3286	3287
2076	F 9	3288	3289
2077	F 10	3290	3291
2078	F 10	3292	3293
2079	F 11	3294	3295
2080	F 11	3296	3297
2081	F 12	3298	3299
2082	F 12	3300	3301
2083	F 13	3302	3303
2084	F 13	3304	3305
2085	F 14	3306	3307
2086	F 14	3308	3309
2087	F 15	3310	3311
2088	F 15	3312	3313
2089	F 16	3314	3315
2090	F 16	3316	3317
2091	F 17	3318	3319
2092	F 17	3320	3321
2093	F 18	3322	3323
2094	F 18	3324	3325
2095	F 19	3326	3327
2096	F 19	3328	3329
2097	F 20	3330	3331
2098	F 20	3332	3333
2099	F 21	3334	3335
2100	F 21	3336	3337
2101	F 22	3338	3339
2102	F 22	3340	3341
2103	F 23	3342	3343
2104	F 23	3344	3345
2105	F 24	3346	3347
2106	F 24	3348	3349
2107	F 25	3350	3351
2108	F 25	3352	3353
2109	F 26	3354	3355
2110	F 26	3356	3357
2111	F 27	3358	3359
2112	F 27	3360	3361
2113	F 28	3362	3363
2114	F 28	3364	3365
2115	F 29	3366	3367
2116	F 29	3368	3369
2117	F 30	3370	3371
2118	F 30	3372	3373
2119	F 31	3374	3375
2120	F 31	3376	3377
2121	F 32	3378	3379
2122	F 32	3380	3381
2123	F 33	3382	3383
2124	F 33	3384	3385
2125	F 34	3386	3387
2126	F 34	3388	3389
2127	F 35	3390	3391
2128	F 35	3392	3393
2129	F 36	3394	3395
2130	F 36	3396	3397
2131	F 37	3398	3399
2132	F 37	3400	3401
2133	F 38	3402	3403
2134	F 38	3404	3405
2135	F 39	3406	3407
2136	F 39	3408	3409
2137	F 40	3410	3411
2138	F 40	3412	3413
2139	F 41	3414	3415
2140	F 41	3416	3417
2141	F 42	3418	3419
2142	F 42	3420	3421
2143	F 43	3422	3423
2144	F 43	3424	3425
2145	F 44	3426	3427
2146	F 44	3428	3429
2147	F 45	3430	3431
2148	F 45	3432	3433
2149	F 46	3434	3435
2150	F 46	3436	3437
2151	F 47	3438	3439
2152	F 47	3440	3441
2153	F 48	3442	3443
2154	F 48	3444	3445
2155	F 49	3446	3447
2156	F 49	3448	3449
2157	F 50	3450	3451
2158	F 50	3452	3453
2159	F 51	3454	3455
2160	F 51	3456	3457
2161	F 52	3458	3459
2162	F 52	3460	3461
2163	F 53	3462	3463
2164	F 53	3464	3465
2165	F 54	3466	3467
2166	F 54	3468	3469
2167	F 55	3470	3471
2168	F 55	3472	3473
2169	F 56	3474	3475
2170	F 56	3476	3477
2171	F 57	3478	3479
2172	F 57	3480	3481
2173	F 58	3482	3483
2174	F 58	3484	3485
2175	F 59	3486	3487
2176	F 59	3488	3489
2177	F 60	3490	3491
2178	F 60	3492	3493
2179	F 61	3494	3495
2180	F 61	3496	3497
2181	F 62	3498	3499
2182	F 62	3500	3501
2183	F 63	3502	3503
2184	F 63	3504	3505
2185	F 64	3506	3507
2186	F 64	3508	3509
2187	F 65	3510	3511
2188	F 65	3512	3513
2189	F 66	3514	3515
2190	F 66	3516	3517
2191	F 67	3518	3519
2192	F 67	3520	3521
2193	F 68	3522	3523
2194	F 68	3524	3525
2195	F 69	3526	3527
2196	F 69	3528	3529
2197	F 70	3530	3531
2198	F 70	3532	3533
2199	F 71	3534	3535
2200	F 71	3536	3537
2201	F 72	3538	3539
2202	F 72	3540	3541
2203	F 73	3542	3543
2204	F 73	3544	3545
2205	F 74	3546	3547
2206	F 74	3548	3549
2207	F 75	3550	3551
2208	F 75	3552	3553
2209	F 76	3554	3555
2210	F 76	3556	3557
2211	F 77	3558	3559
2212	F 77	3560	3561
2213	F 78	3562	3563
2214	F 78	3564	3565
2215	F 79	3566	3567
2216	F 79	3568	3569
2217	F 80	3570	3571
2218	F 80	3572	3573
2219	F 81	3574	3575
2220	F 81	3576	3577
2221	F 82	3578	3579
2222	F 82	3580	3581
2223	F 83	3582	3583
2224	F 83	3584	3585
2225	F 84	3586	3587
2226	F 84	3588	3589
2227	F 85	3590	3591
2228	F 85	3592	3593
2229	F 86	3594	3595
2230	F 86	3596	3597
2231	F 87	3598	3599
2232	F 87	3600	3601
2233	F 88	3602	3603
2234	F 88	3604	3605
2235	F 89	3606	3607
2236	F 89	3608	3609
2237	F 90	3610	3611
2238	F 90	3612	3613
2239	F 91	3614	3615
2240	F 91	3616	3617
2241	F 92	3618	3619
2242	F 92	3620	3621
2243	F 93	3622	3623
2244	F 93	3624	3625
2245	F 94	3626	3627
2246	F 94	3628	3629
2247	F 95	3630	3631
2248	F 95	3632	3633
2249	F 96	3634	3635
2250	F 96	3636	3637
2251	F 97	3638	3639
2252	F 97	3640	3641
2253	F 98	3642	3643
2254	F 98	3644	3645
2255	F 99	3646	3647
2256	F 99	3648	3649
2257	F 100	3650	3651
2258	F 100	3652	3653
2259	F 101	3654	3655
2260	F 101	3656	3657
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2262	F 102	3660	3661
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2278	F 110	3692	3693
2279	F 111	3694	3695
2280	F 111	3696	3697
2281	F 112	3698	3699
2282	F 112	3700	3701
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2284	F 113	3704	3705
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2286	F 114	3708	3709
2287	F 115	3710	3711
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2297	F 120	3730	3731
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2299	F 121	3734	3735
2300	F 121	3736	3737
2301	F 122	3738	3739
2302	F 122	3740	3741
2303	F 123	3742	3743
2304	F 123	3744	3745
2305	F 124	3746	3747
2306	F 124	3748	3749
2307	F 125	3750	3751
2308	F 125	3752	3753
2309	F 126	3754	3755
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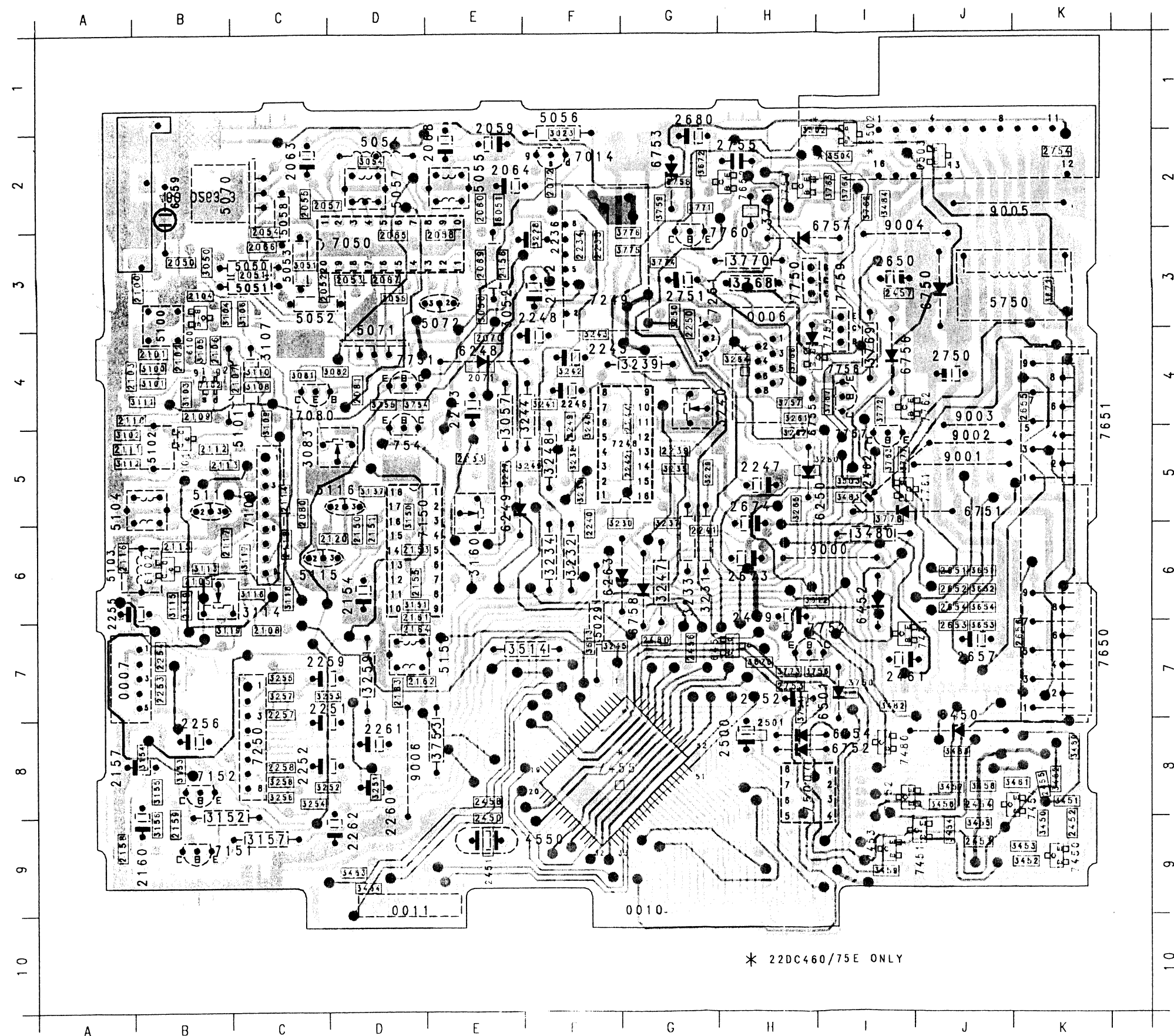


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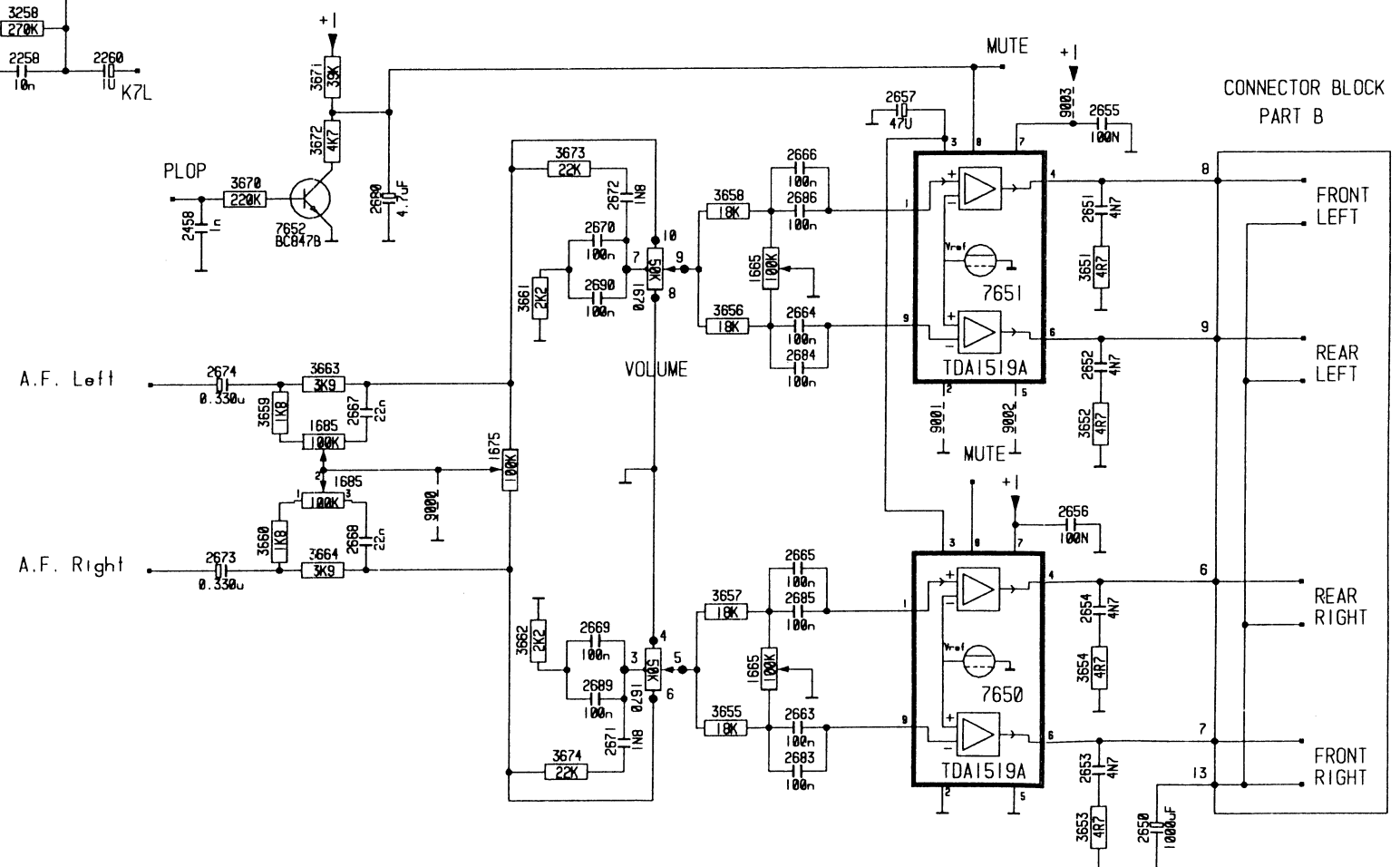
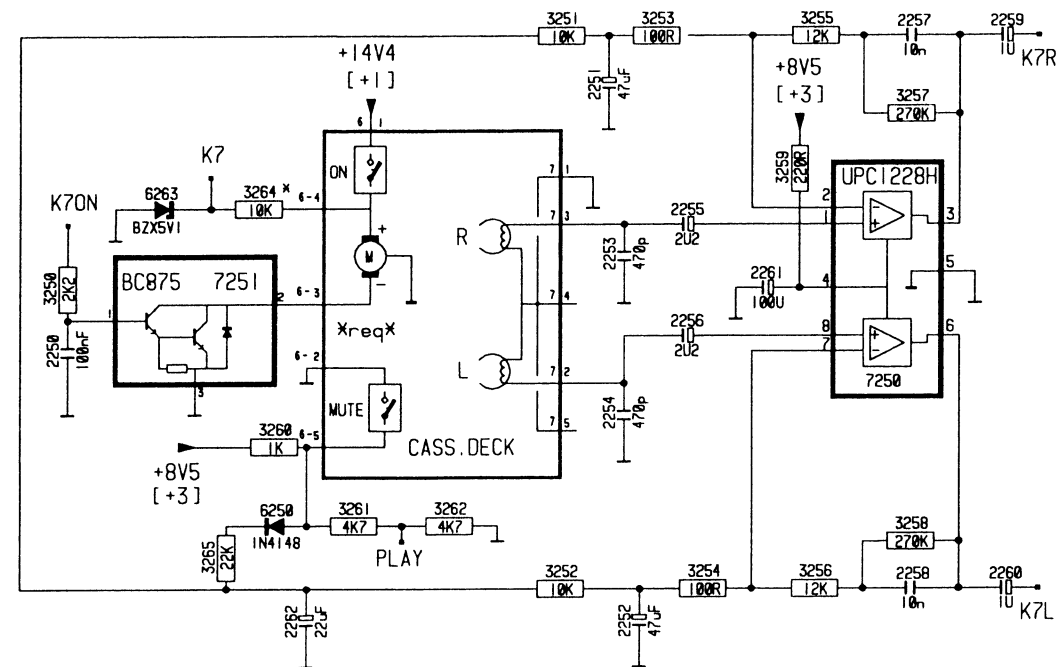
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2250	3G	3236	5F	5054	2D		
2251	7C	3237	6G	5055	2E		
2252	8C	3238	5F	5056	1F		
2253	7B	3239	4G	5057	2D		
2254	7B	3240	4H	5058	2C		
2255	6A	3241	4F	5070	2B		
2256	8B	3242	4F	5071	4D		
2257	7C	3243	4F	5072	3E		
2258	8C	3244	4F	5100	3B		
2259	7C	3245	7F	5101	4C		
2260	8D	3246	4F	5102	5B		
2261	8D	3247	6G	5103	6A		
2262	9C	3248	5F	5104	5A		
2450	9E	3249	5F	5114	5B		
2451	9E	3250	3G	5115	6C		
2452	9K	3251	8D	5116	5D		
2453	9J	3252	8C	5150	7E		
2454	8J	3253	7C	5750	3J		

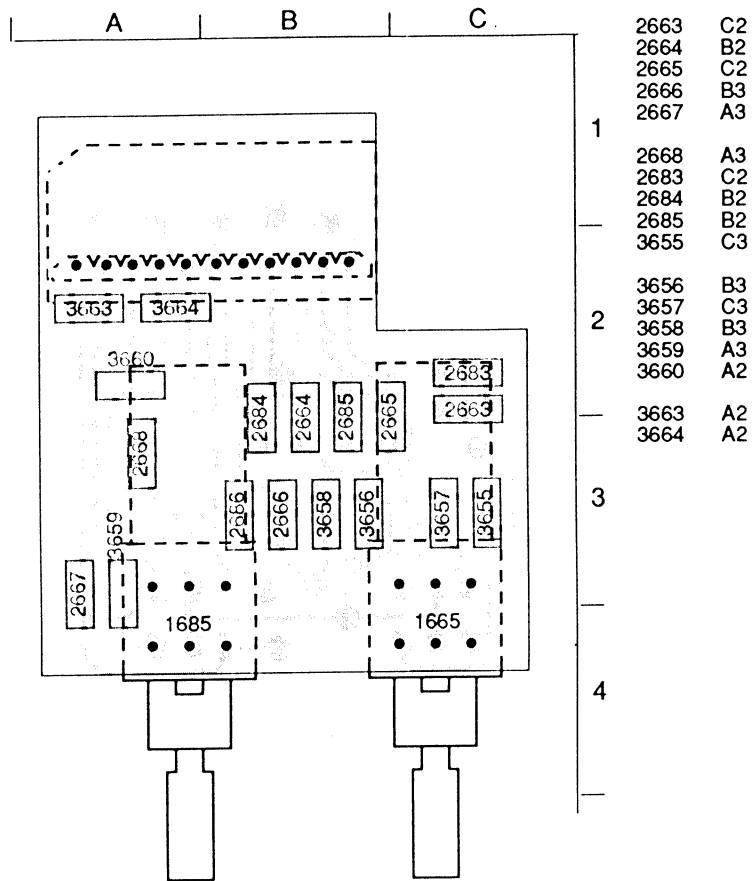
MAIN PANEL BF + DECK PART



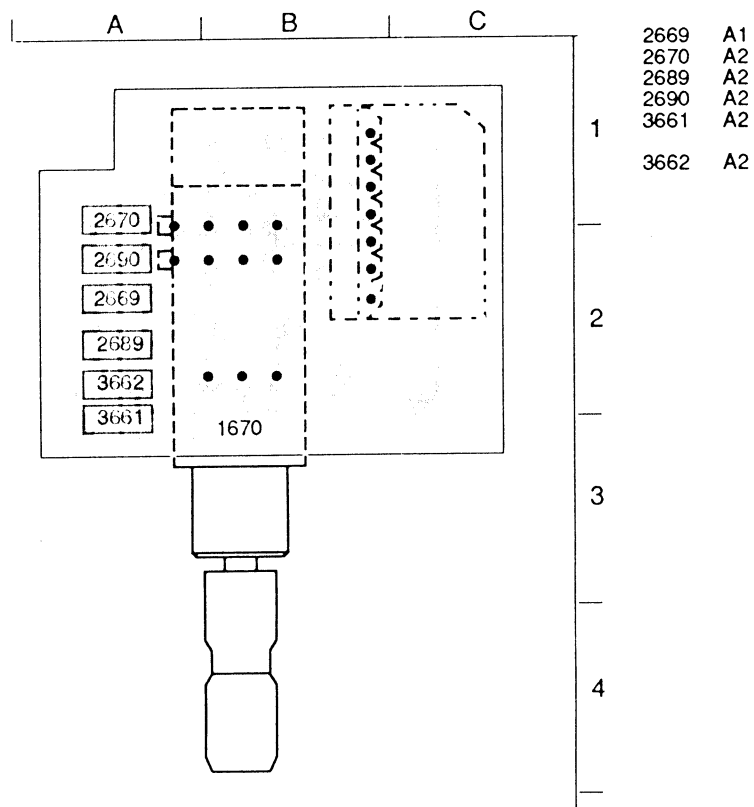
22DC460/75
22DC460/75E

* 3264:4K7 FOR DC460/75E

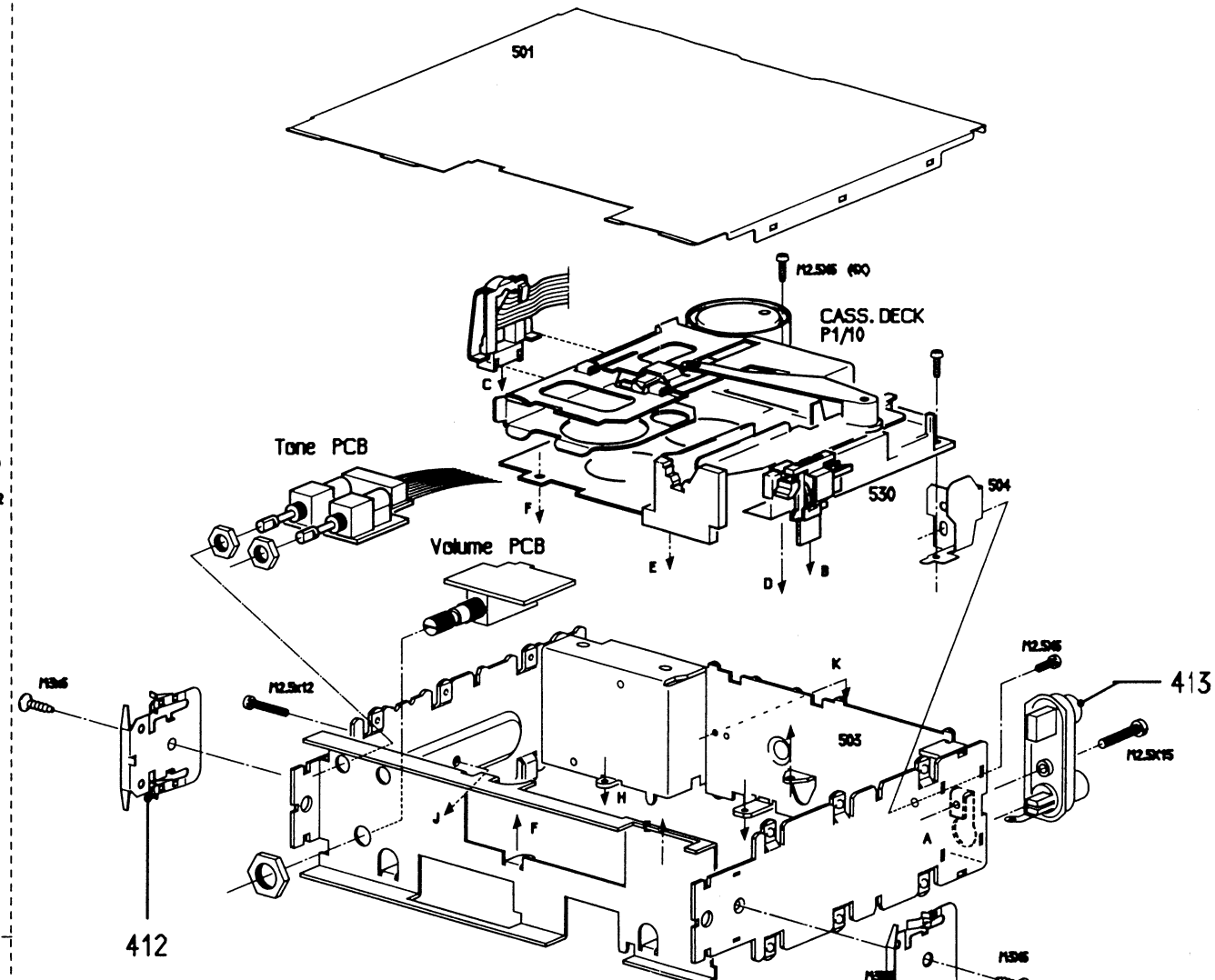
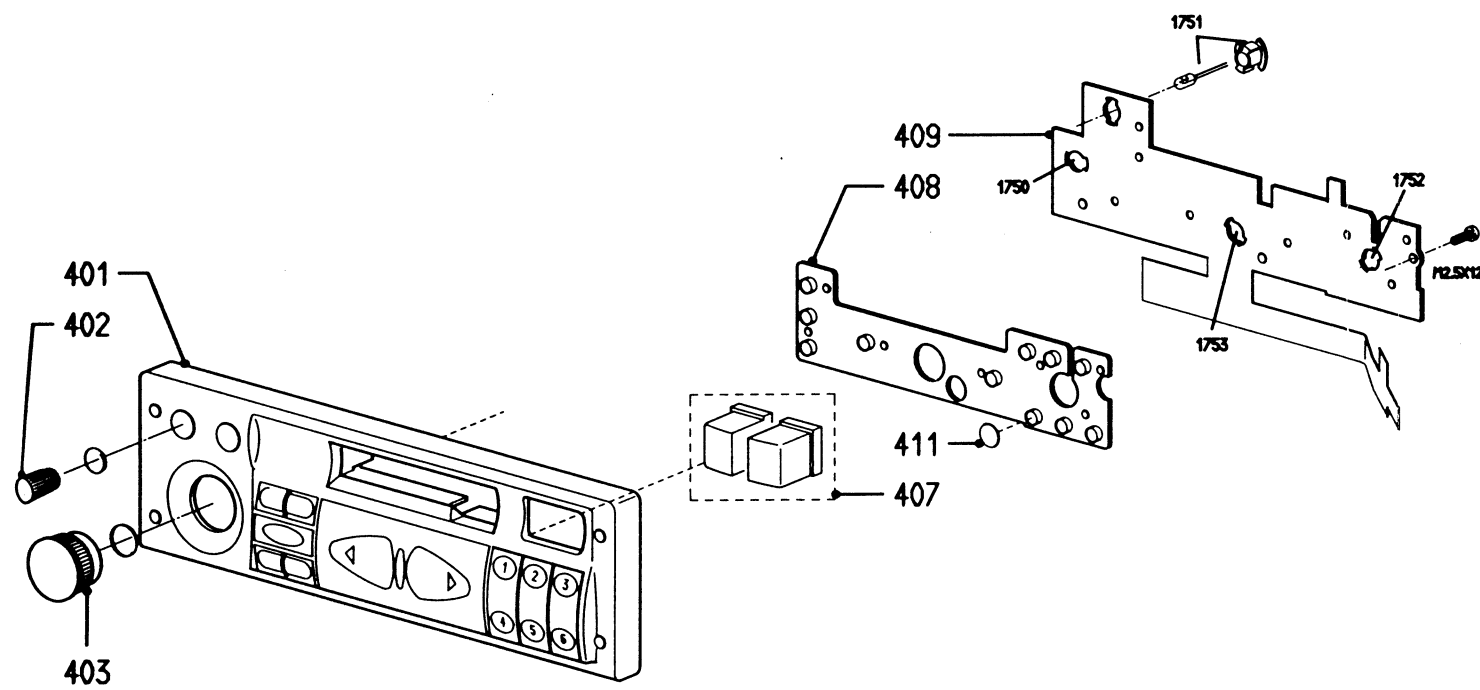
Tone PCB Layout



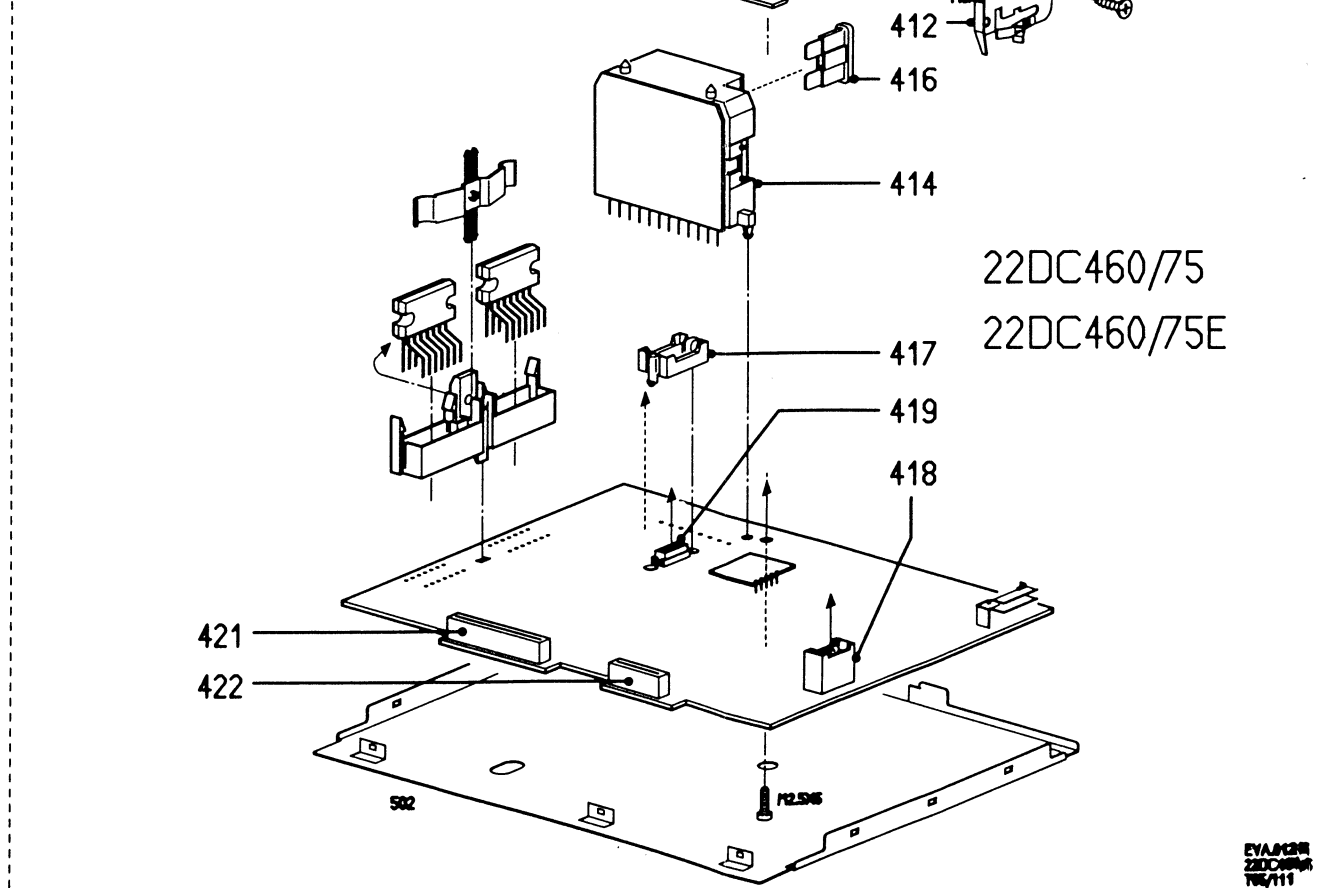
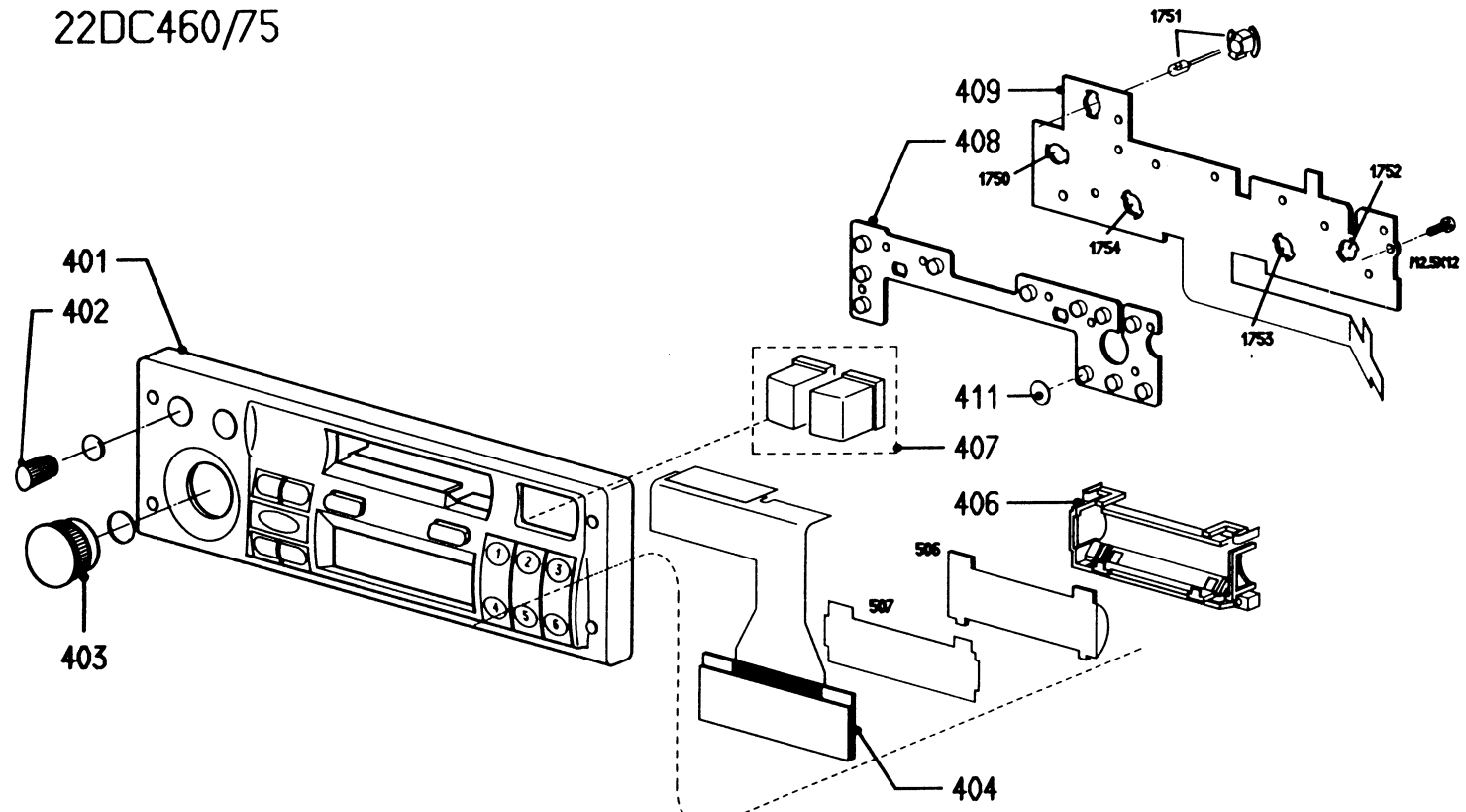
Volume PCB Layout



22DC460/75E



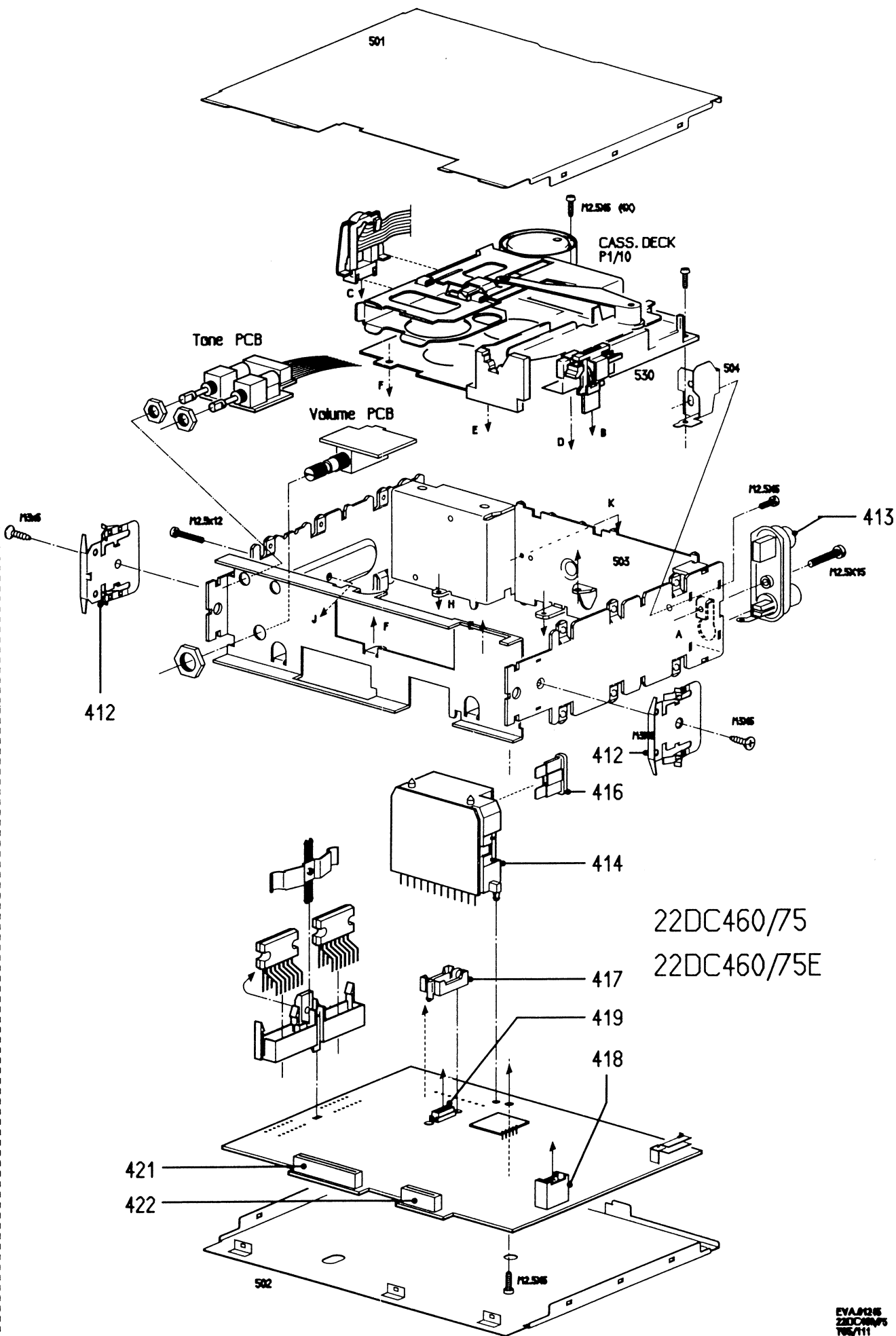
22DC460/75



10 a

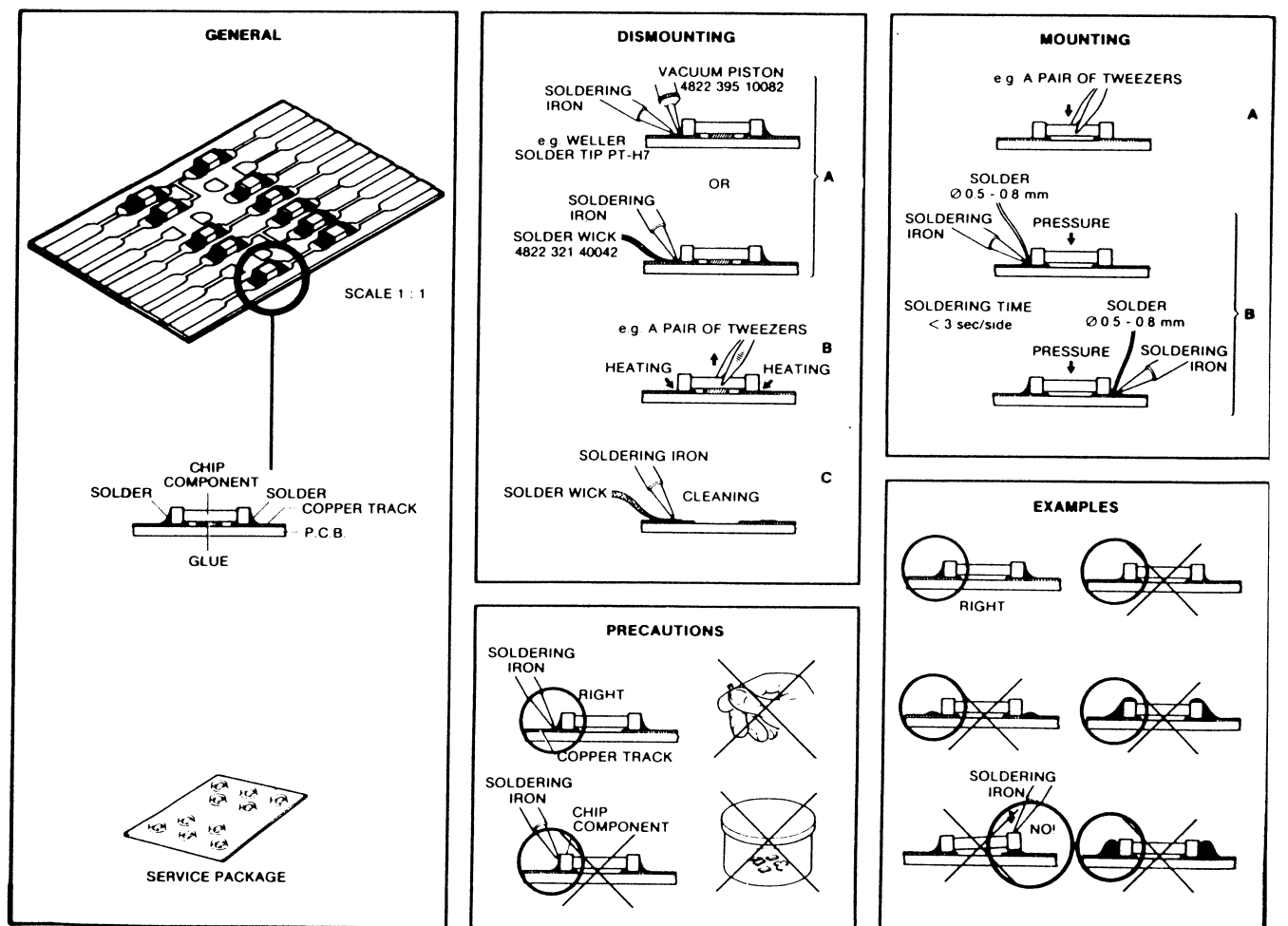
10 b

22DC460/75
22DC460/75E



401	4822 459 50642	ORNAMENTAL PLATE FOR 460/75E
401	4822 459 50639	ORNAMENTAL PLATE FOR 460/75
402	4822 413 31664	tone (2X)
403	4822 413 41661	ON/OFF
404	4822 130 91025	DISPLAY
406	4822 404 21179	SUPPORT LCD
407	4822 410 61523	DECK BUTTON SET
408	4822 410 61547	BUTTON KEYB ASSY FOR 460/75E
408	4822 410 61518	BUTTON KEYB ASSY FOR 460/75
409	4822 320 50237	FOIL FLEX ASSY FOR 460/75E
409	4822 320 50235	FOIL FLEX ASSY FOR 460/75
411	4822 466 10609	SPACER SWITCHING
412	4822 492 70918	FIX SET IN DASHBOARD
413	4822 532 30464	AERIAL BUSH ASSY
414	4822 290 61053	CONNECTOR BLOCK
416	4822 071 25002	FUSE
417	4822 256 91563	CATCH FRAME
418	4822 267 40818	CONNECTOR HEAD 5 PIN
419	4822 267 50872	CONNECTOR DECK 8 PIN
421	5322 267 60282	CONNECTOR FOIL 25 PINS FOR 460/75 ONLY
422	4822 267 50815	CONNECTOR 11 PINS

HANDLING CHIP COMPONENTS

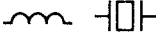
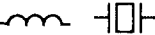


27 012CT2

EVA/02/05
22DC460/75
705/111

Miscellaneous			— —		
1665	4822 100 30162	TONE POT 2X100K	2158	4822 122 33555	22NF 10%
1670	4822 100 11812	VOL POT 100K + 50K	2159	4822 122 32542	47NF10% X7R 63V
1685	4822 100 30162	TONE POT 2X100K	2160	5322 124 22626	2,2μF 25V
1750	4822 134 41084	LAMP 12V 100MA	2161	4822 122 33514	68PF 5% NP0 50V
1751	4822 134 41084	LAMP 12V 100MA	2162	4822 122 33837	1NF 10%X7R 50V
1752	4822 134 41084	LAMP 12V 100MA	2163	4822 122 33555	22NF 10%
1753	4822 134 41084	LAMP 12V 100MA	2164	4822 122 33515	82PF 5% NP0 63V
1754	4822 134 41084	LAMP 12V 100MA DC460/75	2233	4822 122 33181	150PF 5% NP0 50V
— —			2234	4822 122 33496	100NF10% X7R 63V
2050	5322 122 31647	1NF10% X7R 63V	2235	4822 122 33496	100NF10% X7R 63V
2051	5322 122 32286	3,3PF 5% NP0 50V	2236	4822 124 23624	47μF 20% 16V
2052	5322 122 32287	4,7PF 5% NP0 50V	2239	4822 122 31947	100NF 20% Y5V 63V
2053	5322 122 32965	18PF 5% NP0 50V	2240	4822 122 31947	100NF 20% Y5V 63V
2054	4822 122 33216	270PF 5% NP0 50V	2241	4822 122 33893	18NF 10% X7R 63V
2055	4822 122 33216	270PF 5% NP0 50V	2242	4822 122 33893	18NF 10% X7R 63V
2057	4822 122 33177	10NF 20% X7R 50V	2243	4822 124 41873	4,7μF 20% 35V
2058	4822 122 31947	100NF 20%Y5V 63V	2244	5322 126 10511	1NF 5% NP0 50V
2059	4822 124 41796	22μF 20% 16V	2245	4822 124 41794	0,33μF 20% 50V
2060	4822 122 33216	270PF 5% NP0 50V	2246	4822 124 41794	0,33μF 20% 50V
2063	4822 124 41795	1μF 20% 50V	2247	4822 124 41554	220μF 20% 10V
2064	4822 124 40272	33μF 20% 16V	2248	4822 124 41795	1μF 20% 50V
2065	4822 122 31947	100NF 20%Y5V 63V	2249	4822 122 31947	100NF 20% Y5V 63V
2066	4822 122 33213	22PF 5% NP0 0805	2250	4822 122 31947	100NF 20% Y5V 63V
2067	4822 122 31947	100NF 20% Y5V 63V	2251	4822 124 23624	47μF 20% 16V
2068	4822 124 41506	47μF 20% 16V	2252	4822 124 23624	47μF 20% 16V
2069	4822 122 33339	4,7NF 10% X7R 50V 0805	2253	5322 122 32268	470PF 10% 50V
2070	4822 122 33339	4,7NF 10% X7R 50V 0805	2254	5322 122 32268	470PF 10% 50V
2071	4822 122 31947	100NF 20% Y5V 63V	2255	4822 124 40244	2,2μF 20% 63V
2072	4822 122 32442	10NF 50V	2256	4822 124 40244	2,2μF 20% 63V
2080	5322 122 31647	1NF 10% X7R 63V	2257	4822 122 33177	10NF 20% X7R 50V
2081	4822 122 33837	1NF 10% X7R 50V	2258	4822 122 33177	10NF 20% X7R 50V
2100	4822 122 31971	10PF 10% 50V	2259	4822 124 41795	1μF 20% 50V
2101	4822 126 10205	6PF NP0 50V	2260	4822 124 41795	1μF 20% 50V
2102	4822 126 10205	6PF NP0 50V	2261	4822 124 23432	100μF 20% 10V
2103	4822 122 33837	1NF10%X7R 50V	2262	4822 124 41796	22μF 20% 16V
2104	4822 122 33177	10NF 20% X7R 50V	2450	4822 122 33514	68PF 5% NP0 50V
2105	4822 122 33177	10NF 20% X7R 50V	2451	4822 122 33514	68PF 5% NP0 50V
2106	4822 122 33837	1NF10%X7R 50V	2452	4822 122 31947	100NF 20% Y5V 63V
2107	4822 122 33177	10NF 20% X7R 50V	2453	4822 122 33496	100NF 10% X7R 63V
2108	4822 122 33837	1NF 10% X7R 50V	2454	4822 122 33496	100NF 10% X7R 63V
2109	5322 122 32448	10PF 5% 50V	2455	4822 122 33496	100NF 10% X7R 63V
2110	4822 122 33837	1NF 10% X7R 50V	2456	4822 122 33177	10NF 20% X7R 50V
2111	5322 122 32448	10PF 5% 50V	2457	4822 122 31947	100NF 20% Y5V 63V
2112	5322 122 32965	18PF 5% NP0 50V	2458	4822 122 33837	1NF 10% X7R 50V
2113	5322 122 32448	10PF 5% 50V	2459	4822 124 41554	220μF 20% 10V
2114	4822 122 31947	100NF 20% Y5V 63V	2460	4822 122 33837	1NF 10% X7R 50V
2115	4822 126 10205	6PF NP0 50V	2461	4822 124 41506	47μF 20% 16V
2116	4822 122 33635	2NF 20% 50V	2462	4822 124 21473	150μF 20% 16V
2117	4822 122 32442	10NF 50V	2500	4822 124 23624	47μF 20% 16V
2118	4822 122 32442	10NF 50V	2501	4822 122 33555	22NF 10%
2119	4822 122 33216	270PF 5% NP0 50V	2650	4822 124 40184	1000μF 20% 10V
2120	4822 122 33514	68PF 5% NP0 50V	2651	4822 122 33339	4,7NF 10% X7R 50V 0805
2150	4822 122 33555	22NF10%	2652	4822 122 33339	4,7NF 10% X7R 50V 0805
2151	4822 122 33555	22NF10%	2653	4822 122 33339	4,7NF 10% X7R 50V 0805
2152	4822 124 23624	47μF 20% 16V	2654	4822 122 33339	4,7NF 10% X7R 50V 0805
2153	4822 122 33555	22NF 10%	2655	4822 122 31947	100NF 20% Y5V 63V
2154	4822 124 41795	1μF 20% 50V	2656	4822 122 31947	100NF 20% Y5V 63V
2155	4822 122 31947	100NF 20%Y5V 63V	2657	4822 124 41506	47μF 20% 16V
2156	4822 122 33555	22NF 10%	2663	4822 122 31947	100NF 20% Y5V 63V
2157	4822 124 22711	100μF 20% 10V	2664	4822 122 31947	100NF 20% Y5V 63V
			2665	4822 122 31947	100NF 20% Y5V 63V

					
2666	4822 122 31947	100NF 20% Y5V 63V	3227	4822 051 20561	560Ω 5% 0,1W
2667	4822 122 33555	22NF 10%	3228	4822 051 20109	10Ω 5% 0,1W
2668	4822 122 33555	22NF 10%	3229	4822 051 20104	100K 5% 0,1W
2669	4822 122 33496	100NF 10% X7R 63V	3230	4822 051 20104	100K 5% 0,1W
2670	4822 122 33496	100NF 10% X7R 63V	3232	4822 050 16804	680K 1% 0,4W
2673	4822 124 41794	0,33μF 20% 50V	3233	4822 050 22203	22K 1% 0,6W
2674	4822 124 41794	0,33μF 20% 50V	3234	4822 050 22203	22K 1% 0,6W
2680	4822 124 41873	4,7μF 20% 35V	3235	4822 051 20393	39K 5% 0,1W
2683	4822 122 31947	100NF 20% Y5V 63V	3236	4822 051 20393	39K 5% 0,1W
2684	4822 122 31947	100NF 20% Y5V 63V	3237	4822 051 20472	4K70 5% 0,1W
2685	4822 122 31947	100NF 20% Y5V 63V	3238	4822 051 20472	4K70 5% 0,1W
2686	4822 122 31947	100NF 20% Y5V 63V	3240	4822 100 11679	4,7K 30%LIN 0,2W
2689	4822 122 33496	100NF 10%X7R 63V	3241	4822 051 20473	47K 5% 0,1W
2690	4822 122 33496	100NF 10%X7R 63V	3242	4822 051 20102	1K 5% 0,1W
2750	4822 124 22412	2200μF 20% 16V	3243	4822 051 20689	68Ω 5% 0,1W
2751	4822 124 23624	47μF 20% 16V	3244	4822 116 52234	100K 5% 0,5W
2752	4822 124 22711	100μF 20% 10V	3245	4822 051 20103	10K 5% 0,1W
2753	4822 122 31947	100NF 20% Y5V 63V	3246	4822 051 20184	180K 5% 0,1W
2754	5322 122 31647	1NF 10% X7R 63V	3248	4822 116 80659	1K5 5% 0,5W
2755	4822 121 42408	220NF 5% 63V	3249	4822 051 20122	1K20 5% 0,1W
			3250	4822 051 20222	2K20 5% 0,1W
3023	4822 051 20471	470Ω 5% 0,1W	3251	4822 051 20103	10K 5% 0,1W
3050	4822 051 20561	560Ω 5% 0,1W	3252	4822 051 20103	10K 5% 0,1W
3051	4822 051 20471	470Ω 5% 0,1W	3253	4822 051 20101	100Ω 5% 0,1W
3052	4822 116 52234	100K 5% 0,5W	3254	4822 051 20101	100Ω 5% 0,1W
3054	4822 051 20102	1K 5% 0,1W	3255	4822 051 20123	12K 5% 0,1W
3055	4822 051 20102	1K 5% 0,1W	3256	4822 051 20123	12K 5% 0,1W
3056	4822 051 20103	10K 5% 0,1W	3257	4822 051 20274	270K 5% 0,1W
3081	4822 051 20563	56K 5% 0,1W	3258	4822 051 20274	270K 5% 0,1W
3082	4822 051 20272	2K70 5% 0,1W	3259	4822 116 52215	220Ω 5% 0,5W
3083	4822 100 11683	2K30 5%LIN 0,2W	3260	4822 051 20102	1K 5% 0,1W
3100	4822 051 20184	180K 5% 0,1W	3261	4822 051 20472	4K70 5% 0,1W
3101	4822 051 20184	180K 5% 0,1W	3262	4822 051 20472	4K70 5% 0,1W
3102	4822 051 20271	270Ω 5% 0,1W	3264	4822 051 20103	10K 5% 0,1W
3103	4822 051 20122	1K20 5% 0,1W	3264	4822 051 20472	4K7 5% 0805
3104	4822 051 20104	100K 5% 0,1W	3265	4822 051 20223	22K 5% 0,1W
3105	4822 051 20229	22Ω 5% 0,1W	3450	4822 051 20103	10K 5% 0,1W
3106	4822 051 20472	4K70 5% 0,1W	3451	4822 051 20223	22K 5% 0,1W
3107	4822 116 52234	100K 5% 0,5W	3452	4822 051 20102	1K 5% 0,1W
3108	4822 051 20184	180K 5% 0,1W	3453	4822 051 20102	1K 5% 0,1W
3109	4822 051 20473	47K 5% 0,1W	3454	4822 051 20393	39K 5% 0,1W
3110	4822 051 20229	22Ω 5% 0,1W	3455	4822 051 20103	10K 5% 0,1W
3111	4822 051 20229	22Ω 5% 0,1W	3456	4822 051 20274	270K 5% 0,1W
3112	4822 051 20104	100K 5% 0,1W	3457	4822 051 20274	270K 5% 0,1W
3113	4822 051 20104	100K 5% 0,1W	3458	4822 051 20103	10K 5% 0,1W
3114	4822 100 20589	20K LIN 30%	3459	4822 051 20103	10K 5% 0,1W
3115	4822 051 20473	47K 5% 0,1W	3460	4822 051 20103	10K 5% 0,1W
3116	4822 051 20274	270K 5% 0,1W	3461	4822 051 20224	220K 5% 0,1W
3117	4822 051 20151	150Ω 5% 0,1W	3462	4822 051 20224	220K 5% 0,1W
3118	4822 051 20229	22Ω 5% 0,1W	3463	4822 051 20103	10K 5% 0,1W
3119	4822 051 20223	22K 5% 0,1W	3464	4822 051 20103	10K 5% 0,1W
3137	4822 051 20151	150Ω 5% 0,1W	3480	4822 050 21003	10K 1% 0,6W
3150	4822 051 20181	180Ω 5% 0,1W	3481	4822 051 20184	180K 5% 0,1W
3151	4822 051 20222	2K20 5% 0,1W	3482	4822 051 20223	22K 5% 0,1W
3152	4822 050 21003	10K 1% 0,6W	3483	4822 051 20393	39K 5% 0,1W
3153	4822 051 20182	1K80 5% 0,1W	3484	4822 051 20102	1K 5% 0,1W
3154	4822 051 20101	100Ω 5% 0,1W	3502	4822 051 20331	300Ω 5% 0805
3155	4822 051 20222	2K20 5% 0,1W	3503	4822 051 20331	300Ω 5% 0805
3156	4822 051 20102	1K 5% 0,1W	3504	4822 051 20331	300Ω 5% 0805
3157	4822 050 15601	560Ω 1% 0,4W	3512	4822 051 20103	10K 5% 0,1W
3160	4822 100 11163	100K 30%LIN 0,1W			

					
3513	4822 051 20103	10K 5% 0,1W	5072	4822 242 71883	SFE10.7MS318-D
3514	4822 050 21003	10K 1% 0,6W	5100	4822 156 10666	RF COIL
3651	4822 051 20478	4Ω70 5% 0,1W	5101	4822 157 51999	10μH10%
3652	4822 051 20478	4Ω70 5% 0,1W	5102	4822 157 53767	HF FM
3653	4822 051 20478	4Ω70 5% 0,1W	5103	4822 157 52227	RF COIL
3654	4822 051 20478	4Ω70 5% 0,1W	5104	4822 153 50257	IF-FM COIL
3655	4822 051 20183	18K 5% 0,1W	5114	4822 242 80367	SFE10.7MS3WK3-A TF21
3656	4822 051 20183	18K 5% 0,1W	5115	4822 242 80367	SFE10.7MS3WK3-A TF21
3657	4822 051 20183	18K 5% 0,1W	5116	4822 242 80368	SFE10.7MS2 W4A-TF21
3658	4822 051 20183	18K 5% 0,1W	5150	4822 156 11141	COIL
3659	4822 051 20182	1K80 5% 0,1W	5750	4822 152 20681	CHOKE CU15B2
3660	4822 051 20182	1K80 5% 0,1W			
3661	4822 051 20222	2K20 5% 0,1W	6051	4822 130 82596	BB419
3662	4822 051 20222	2K20 5% 0,1W	6100	4822 130 81643	BB804
3663	4822 051 20392	3K90 5% 0,1W	6101	4822 130 81643	BB804
3664	4822 051 20392	3K90 5% 0,1W	6102	4822 130 81643	BB804
3670	4822 051 20224	220K 5% 0,1W	6248	4822 130 30621	1N4148
3671	4822 051 20393	39K 5% 0,1W	6249	4822 130 31253	BZX79-C2V4
3672	4822 051 20472	4K70 5% 0,1W	6250	4822 130 30621	1N4148
3750	4822 051 20272	2K70 5% 0,1W	6263	4822 130 34233	BZX79-C5V1
3751	4822 051 20101	100Ω 5% 0,1W	6450	4822 130 31253	BZX79-C2V4
3753	4822 116 81849	220K 5%	6451	5322 130 31928	BAS16
3754	4822 051 20103	10K 5% 0,1W	6452	4822 130 30621	1N4148
3755	4822 051 20332	3K30 5% 0,1W	6501	4822 130 30621	1N4148
3756	4822 051 20181	180Ω 5% 0,1W	6502	5322 130 31928	BAS16
3757	4822 051 20561	560Ω 5% 0,1W	6503	5322 130 30691	BAW56
3758	4822 051 20561	560Ω 5% 0,1W	6750	5322 130 30684	1N4002
3759	4822 051 20101	100Ω 5% 0,1W	6751	4822 130 30621	1N4148
3761	4822 116 40216	4Ω7 PTC	6752	4822 130 34233	BZX79-C5V1
3762	4822 051 20104	100K 5% 0,1W	6753	4822 130 30862	BZX79-B9V1
3763	4822 051 20393	39K 5% 0,1W	6754	4822 130 34173	BZX79-B5V6
3764	4822 051 20104	100K 5% 0,1W	6755	5322 130 30684	1N4002
3765	4822 051 20393	39K 5% 0,1W	6756	5322 130 30684	1N4002
3766	4822 051 20393	39K 5% 0,1W	6757	5322 130 30684	1N4002
3767	4822 051 20561	560ΩΩ 5% 0,1W	6758	4822 130 30621	1N4148
3768	4822 116 52226	560E 5% 0,5W	 		
3769	4822 116 52226	560E 5% 0,5W	7014	4822 130 41482	BF410C
3770	4822 050 21003	10K 1% 0,6W	7050	4822 209 72247	TEA6200/V2
3771	4822 051 20103	10K 5% 0,1W	7080	4822 130 44195	BF494
3772	4822 051 20393	39K 5% 0,1W	7100	4822 209 73069	LA1177
3773	4822 051 20103	10K 5% 0,1W	7102	4822 130 61183	BF992/01
3774	4822 051 20103	10K 5% 0,1W	7150	4822 209 63697	TDA1596/V3
3775	4822 051 20182	1K80 5% 0,1W	7151	4822 130 44246	BC549C
3776	4822 051 20182	1K80 5% 0,1W	7152	4822 130 44246	BC549C
3777	4822 051 20102	1K 5% 0,1W	7248	4822 209 73712	TEA5581/N4
3778	4822 051 10008	0Ω 5% 0,25W	7249	4822 214 51676	THIFI IAC7
			7250	4822 209 81928	UPC1228H
4550	4822 242 80369	4,500MHZ	7251	5322 130 61677	BC875
5029	4822 157 52007	4,7μH 10%	7450	4822 130 60511	BC847B
5050	4822 152 20677	10μH 10%	7451	5322 130 41983	BC858B
5051	4822 152 20677	10μH 10%	7452	5322 130 41983	BC858B
5052	4822 157 60122	4,7μH 10%	7453	5322 130 41983	BC858B
5053	4822 152 20678	33μH10%	7454	4822 130 60511	BC847B
5054	4822 157 53338	1000 μH 10%	7455	4822 209 30416	MAIN OTP 460/75E
5055	4822 156 11085	AM COIL	7455	4822 209 30424	MAIN OTP 460/75
5056	4822 152 20678	33μH10%	7480	4822 130 60511	BC847B
5057	4822 156 11084	AM-IF COIL	7481	4822 130 42614	BC849C
5058	4822 152 20679	68μH 10%	7500	4822 900 10161	EEPROM SECURITY (OD E
5070	4822 242 72076	10T77BB(10,7MHZ)	7650	4822 209 30407	TDA1519AQ/N2
5071	4822 242 72076	10T77BB(10,7MHZ)	7651	4822 209 30407	TDA1519AQ/N2



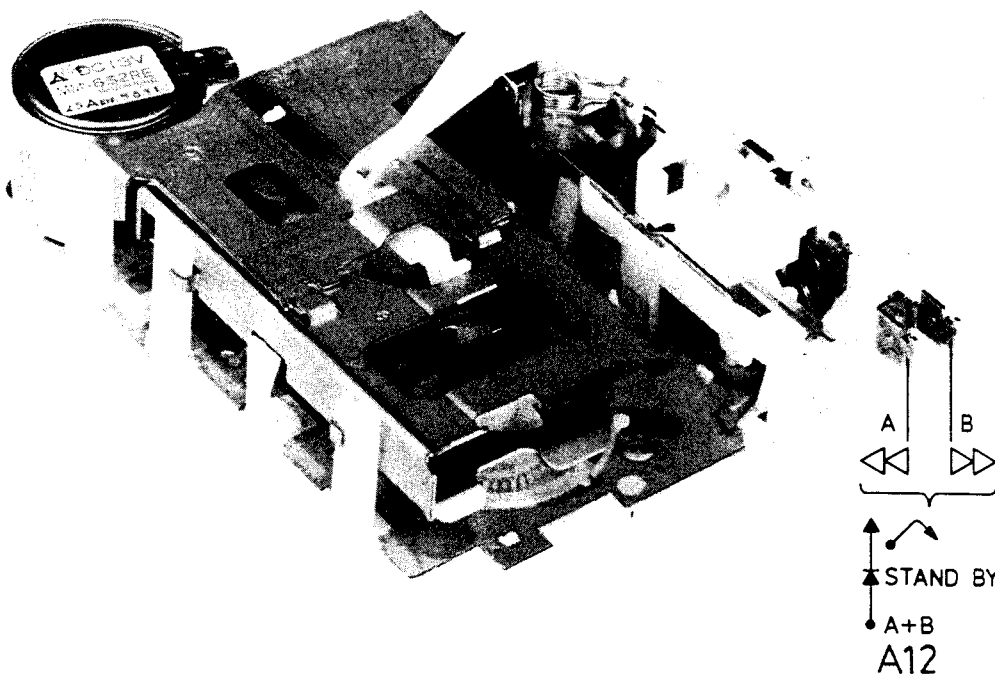
7652	4822 130 60511	BC847B
7750	4822 130 62837	ON4694
7751	5322 130 60068	BC558C
7752	4822 130 44257	BC547
7753	4822 130 60511	BC847B
7754	4822 130 44257	BC547
7755	5322 130 41983	BC858B
7756	4822 130 44283	BC636
7757	4822 130 44121	BC338
7759	4822 130 62651	ON4414
7760	4822 130 40941	BC558
7761	4822 130 60511	BC847B
7762	4822 130 42614	BC849C

Technician's remarks

Service
Service
Service

Service Manual

12 V 



(GB)

SPECIFICATION

Tape speed	: 4.76 cm/sec. $\pm$ 2% (10-45°C)
Working voltage	: 8.4-15 V
Wow and flutter	: $\leq$ 0.3% (10-45°C)
Crosstalk	: $\geq$ 35 dB (1 kHz)
Fast-wind time (C60)	: $\leq$ 120 sec.
Number of tracks	: 2 x 2

(D)

SPEZIFIKATION

Bandgeschwindigkeit	: 4,76 cm/s $\pm$ (10-45°C)
Arbeitsspannung	: 8,4-15 V
Gleichlaufschwankungen	: $\leq$ 0,3% (10-45°C)
Uebersprechen	: $\geq$ 35 dB (1kHz)
Umspuldauer (C60)	: $\leq$ 120 sec.
Spurenzahl	: 2x2

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OPERATION OF TAPE TRANSPORT (Figs. 1 ... 5)

In the aforementioned Figures arrows indicate the movements made by the parts to accomplish a definite operation.

The appended tables show the sequence of the movements as they should be read in the Figures. For this, the following system has been adopted:

- 1 → 3 : movement of two different parts
 1 → 2 : movement of a part composed of several pieces, which, for improved clarity of the Figure, is drawn at different places (e.g. friction).
 1 → 2a

Fig. 1 indicates the initial position
 Figs. 2 ... 5 show the situation at the end of the sequence of movements starting from the situation shown in Fig. 1 (cassette inserted; tape transport in PLAY position).

MAINTENANCE

It is recommended to clean the tape transport and lubricate the principal points at regular intervals.

1. To be cleaned with alcohol or spirit

- playback head
- capstan
- pressure roller
- pulley

To clean head, pressure roller and capstan it is also possible to use a drop-in cleaning cassette (SBC114-4822 389 20015).

2. Lubricating instructions

- See exploded view 41207E.

SERVICING HINTS

In a few places parts are locked by synthetic bosses. To be able to demount these parts, the bosses have to be bent, displaced, etc.

Gearwheel 128b and pressure roller bracket 119 are attached to the spindles by means of a snap connection. These parts can be demounted with a screwdriver.

If gearwheel 128b has to be replaced, the corresponding bracket 128a should be replaced also.

For replacement of the various parts see Figs. 6 ... 11.

ADJUSTMENTS AND CHECKS

Measuring equipment required

- | | |
|---------------------------|-----------------------|
| - Universal test cassette | SBC419-4822 397 30069 |
| - Universal test cassette | SBC420-4822 397 30071 |
| - Friction test cassette | 4822 395 30054 |
| - AC millivoltmeters | |
| - Spring Scale 3-55 gr | |
| - Wow-and flutter meter | |

1. Azimuth (Fig. 12)

- Apply a 4 Ω load to both loudspeaker outputs.
- Connect an AC millivoltmeter across both loudspeaker outputs.
- Play the 10 kHz signal of test cassette SBC419 or SBC420.
- Adjust screw A for the average of the max. output voltages.
- The maximum allowed difference between both channels is 4 dB.

2. Play take-up torque and supplying reel drag

- Insert the friction test cassette.
The play take-up torque should be 55 to 70 g.cm, measured after a 2-minute run-in time.
- The supplying reel drag should be 4.5-7.5 g.cm.
- In case of deviating values, the play take-up torque or supplying reel drag should be replaced.
- The fast wind torque should be 80-130 gcm (with dry weather: low value; with humid weather: high value).
Too high a value can be offset by slightly pressing in spring leaf 137a on the 3 ends with a blunt plastic rod.

3. Pressure roller 119

- Check acc. to Fig. 13.

The pressure of the pressure roller cannot be adjusted; in case of a deviating value spring 172 should be replaced.

4. Wow and flutter/tape speed

This check should be performed on a complete car radio. Proceed as follows:

- Connect wow-and-flutter meter to loudspeaker outputs.
 - Insert test cassette SBC419 or SBC420 and play the 3150 Hz signal.
 - The wow-and-flutter value should be max. 0.3%.
 - The tape speed should be 4.76 cm/sec $\pm$ 2%.
- The speed can be adjusted with screw B (Fig. 12).

In case of excessive wow-and-flutter values the following components should be checked for correct working (adjustment).

- motor 132
- pressure roller 119
- friction clutch 103
- flywheel 137
- belt 117
- bearing 113. First allow the new bearing to "run in" upon replacement (insert flywheel at a small angle and allow it to make some quick turns).
- disc 104.

5. Flywheel 137

- See Fig. 14.

6. Bearing 118

- Set in such a way that both bosses are situated in the middle of the slots in bearing plate 524.

BELT 117, FLYWHEEL 137

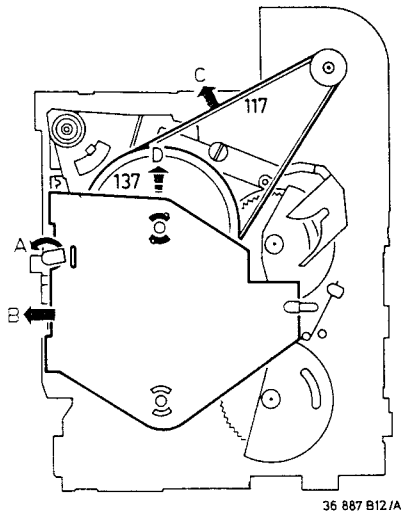


Fig. 6

PRESSURE ROLLER 119, HEAD 119

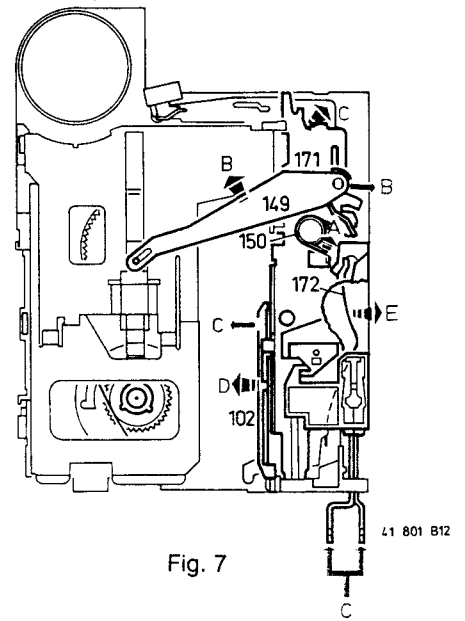


Fig. 7

HEAD BRACKET 124

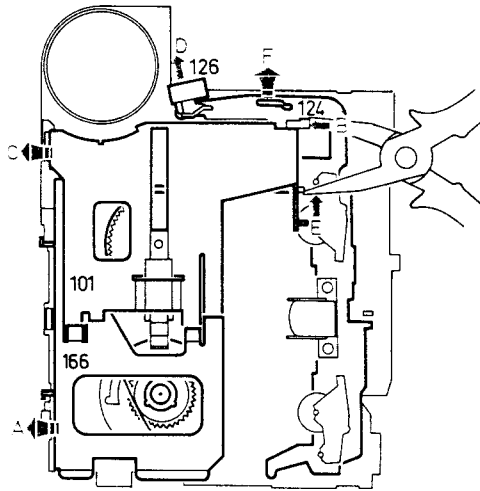


Fig. 8

CLUTCH 103, CARRIER 141

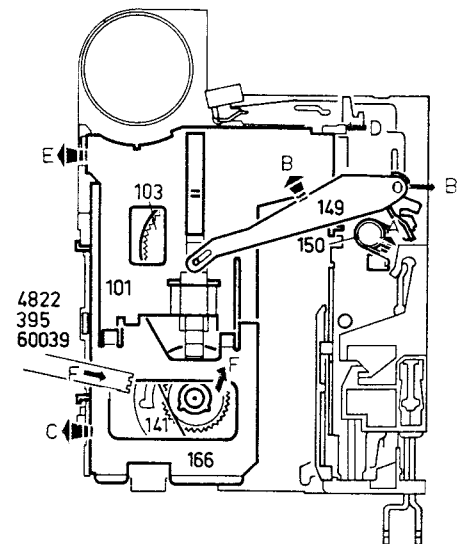


Fig. 9

COG WHEELS 109, 128

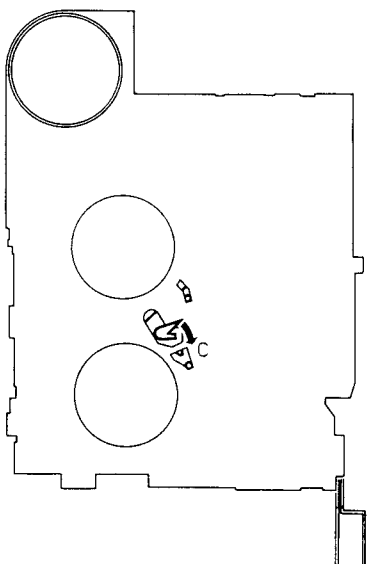


Fig. 10a

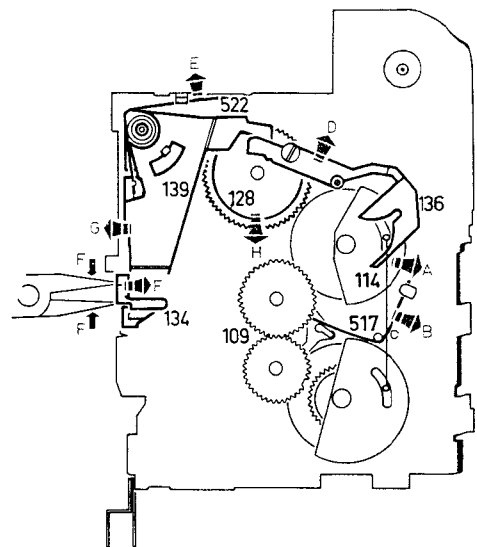


Fig. 10b

BRACKET 169

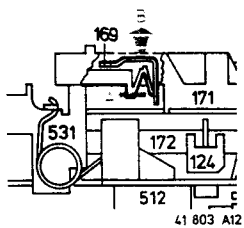


Fig. 11

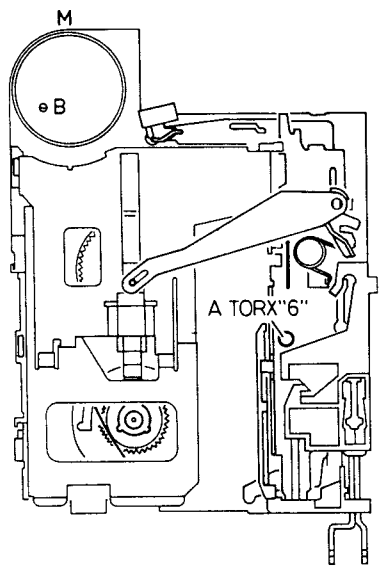


Fig. 12

41 800 B12

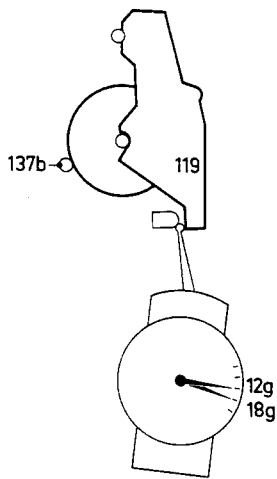


Fig. 13

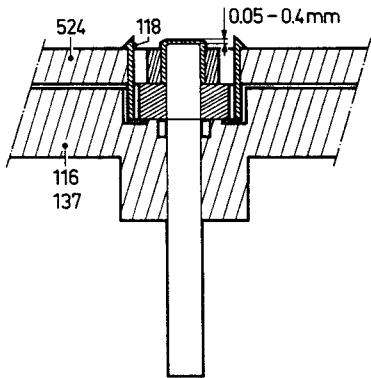


Fig. 14

35 980 A12

D**LAUFWERKFUNKTION (Bilder 1...5)**

In genannten Bildern sind mit Pfeilen die Bewegungen gekennzeichnet, welche die Teile bei einem bestimmten Vorgang ausführen.

In den beigelegten Tabellen ist die Bewegungsfolge festgelegt, wie sie in den Bildern gelesen werden soll. Es wurde folgende Richtlinie zugrundegelegt:

- | | | |
|--------|---|---|
| 1 → 3 | : | Bewegung zweier verschiedener Teile |
| 1 → 2 | : | |
| 1 → 2a | : | Bewegung nur eines Bauteils, das sich mit mehreren Teilen aufbaut und das wegen der Deutlichkeit des Bildes an mehreren Stellen Zeichnerisch dargestellt ist (etwa die Friktion). |

Bild 1 zeigt die Ausgangsstellung
Bild 2...5 sind das Ergebnis der in Bild 1 ausgeführten Bewegungen (Cassette ist also eingelegt, Laufwerk befindet sich in Wiedergabestellung).

WARTUNG

Es empfiehlt sich, das Laufwerk in regelmässigen Zeitabständen zu reinigen und an den wichtigsten Stellen zu schmieren.

1. Reinigen mit Alkohol oder Spiritus

- Wiedergabekopf
- Tonwelle
- Andruckrolle
- Seilrolle

Zum Reinigen von Kopf, Druckrolle und Tonwelle kann auch eine s.g. "drop-in"-Reinigungscassette (SBC114-4822 389 20015) benutzt werden.

2. Schmiervorschrift

- Siehe Explosionsansicht 41207E.

REPARATURHINWEISE

An einigen Stellen sind Bauteile durch Kunststoffnocken verriegelt.

Zum Ausbau dieser Bauteile müssen die Nocken verbogen, verdreht usw. werden.

Zahnrad 128b und Druckrollenbügel 119 sind durch eine Einschnapverbindung an den Achsen befestigt.

Mit Hilfe eines Schraubenziehers lassen sich diese Bauteile ausbauen.

Wenn Zahnrad 128b ausgewechselt wird, ist auch der zugehörige Bügel 128a auszuwechseln.

Auswechseln der genannten Bauteile siehe Bildern 6...11.

EINSTELLUNGEN UND KONTROLLEN**Benötigte Messgeräte**

- Universal-Testcassette SBC419-4822 397 30069
- Universal-Testcassette SBC420-4822 397 30071
- Friktions-Testcassette 4822 395 30054
- Wechselspannungs-Millivoltmeter
- Federwaage 3-55p
- Gleichlaufanalysator.

1. Azimut (Bild 12)

- Beide Lautsprecherausgänge mit 4 Ω belasten.
- An beide Lautsprecherausgänge ein Wechselspannungs-Millivoltmeter schalten.
- Mit Hilfe einer Testcassette SBC419 oder SBC420 das 10-kHz-Signal wiedergeben.
- Schraube A auf den Mittelwert der Höchstaussgangsspannungen einstellen.
- Die Differenz zwischen beiden Kanälen darf zuhöchst 4 dB betragen.

2. Aufwickelfriktion und Gegenzug

- Friktions-Testcassette in das Gerät einlegen. Die Aufwickelfriktion muss 55-70 pcm betragen, gemessen nach einer Einlaufdauer von 2 Minuten.
- Der Gegenzug muss 4.5-7.5 pcm betragen.
- Bei einem abweichenden Wert muss die Aufwickelfriktion oder der Gegenzug ausgewechselt werden.
- Die Aufwickelfriktion (SVL) muss 80-130 pcm sein (bei trockenem Wetter: niedriger Wert; bei feuchtem Wetter: hoher Wert).
Einem zu hohen Wert ist abzuweichen, dadurch dass Blattfeder 137a an den 3 Enden mit einem stumpfen Kunststoffstäbchen ein wenig zusammengedrückt wird.

3. Andruckrolle 119

- Kontrolle nach Bild 13.

Der Andruckrollendruck ist nicht einstellbar.

Bei einem abweichenden Wert muss Feder 172 ausgewechselt werden.

4. Gleichlaufschwankungen/Bandgeschwindigkeit

Es muss mit dem Autoradio komplett kontrolliert werden, und zwar wie folgt.

- Gleichlaufanalysator an die Lautsprecherausgänge schalten.
- Testcassette SBC419 oder SBC420 einlegen und das 3150-Hz-Signal wiedergeben.
- Der Jaulwert muss $\leq 0,3\%$ sein.
- Die Bandgeschwindigkeit muss $4,76 \text{ cm/s} \pm 2\%$ betragen.
Die Geschwindigkeit lässt sich mit Schraube B (Bild 12) einstellen.

Bei einem übermässigen Jaulwert müssen folgende Teile auf ihre richtige Arbeitsweise (Einstellung) kontrolliert werden.

- Motor 132
- Andruckrolle 119
- Reibkupplung 103
- Schwungrad 137
- Seil 117
- Lager 113.

Beim Auswechseln das neue Lager zuerst kurz "einlaufen" (Schwungrad ein wenig schräg einsetzen und einige Umdrehungen schnell rotieren lassen).

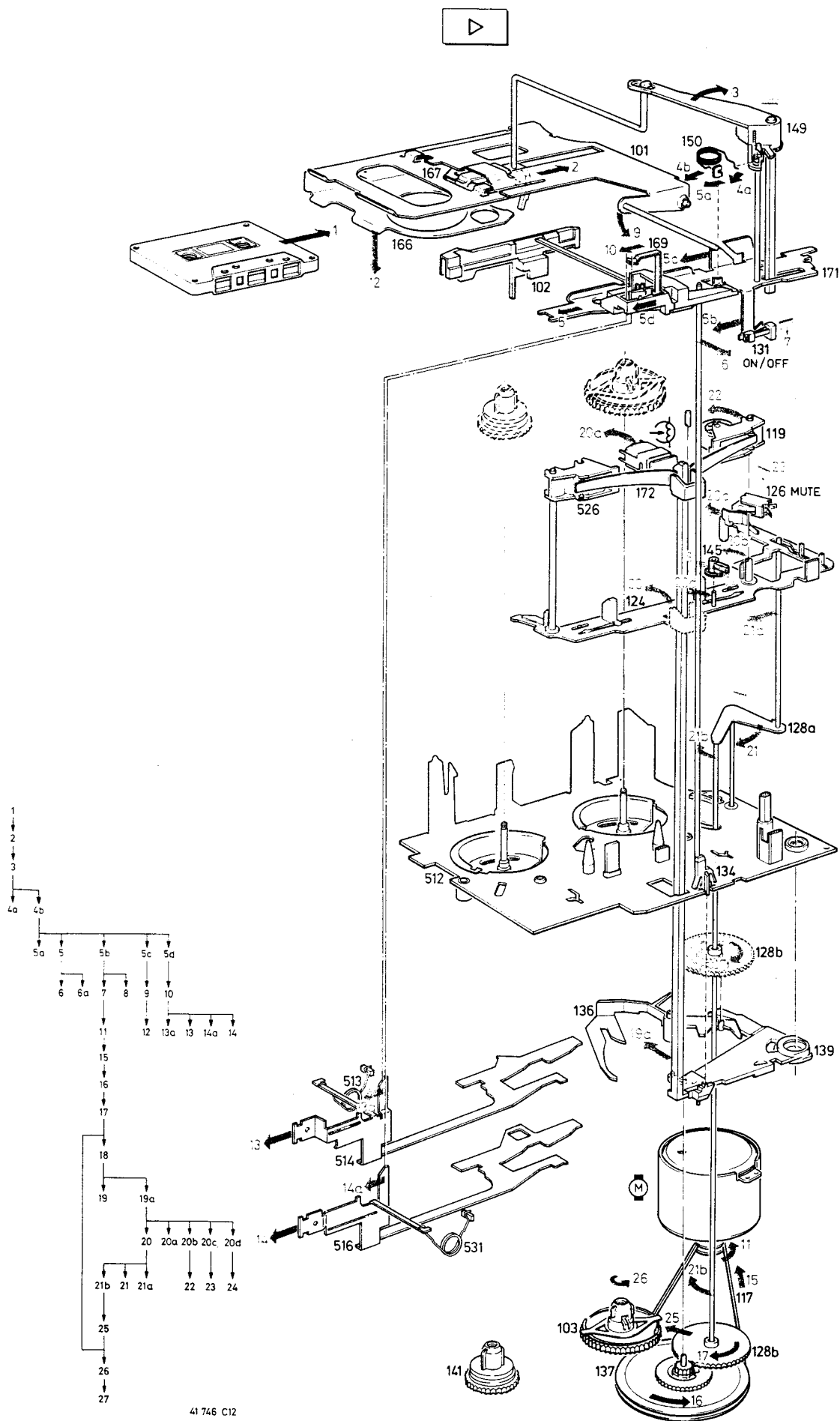
- Scheibe 104.

5. Schwungrad 137

- Siehe Bild 14.

6. Lager 118

- So einstellen dass beide Nocken sich in der Mitte der Aussparungen der Lagerplatte 524 befinden

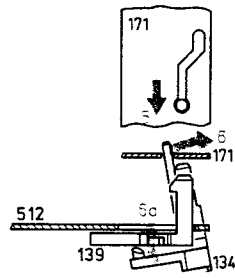


41 746 C12



Fig. 1a

41 743 E12



35 768 A7/A
Fig. 1b

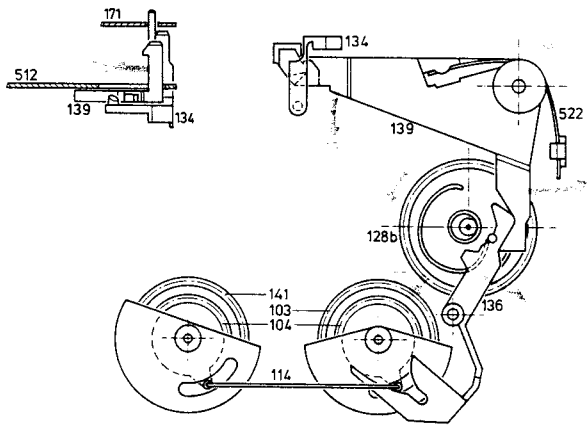


Fig. 1c

41 744 B12

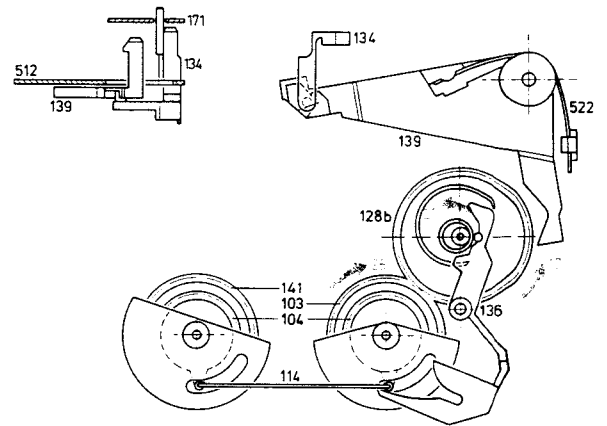
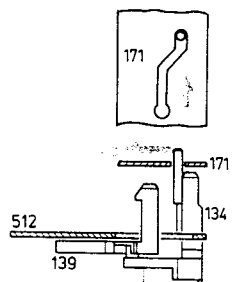


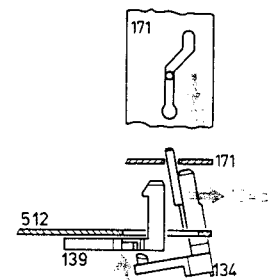
Fig. 1d

41 745 B12



41 748 A12

Fig. 2b



41 749 A12

Fig. 2c

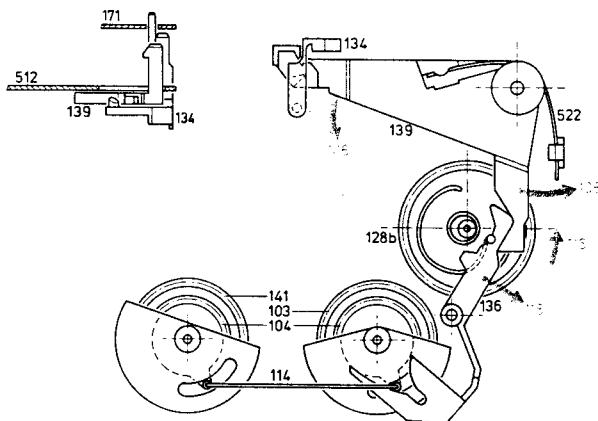


Fig. 2d

41 750 B12

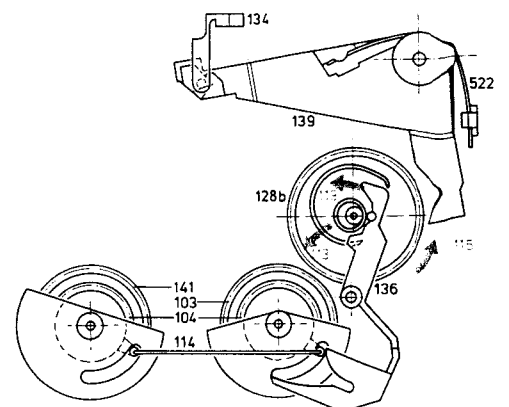
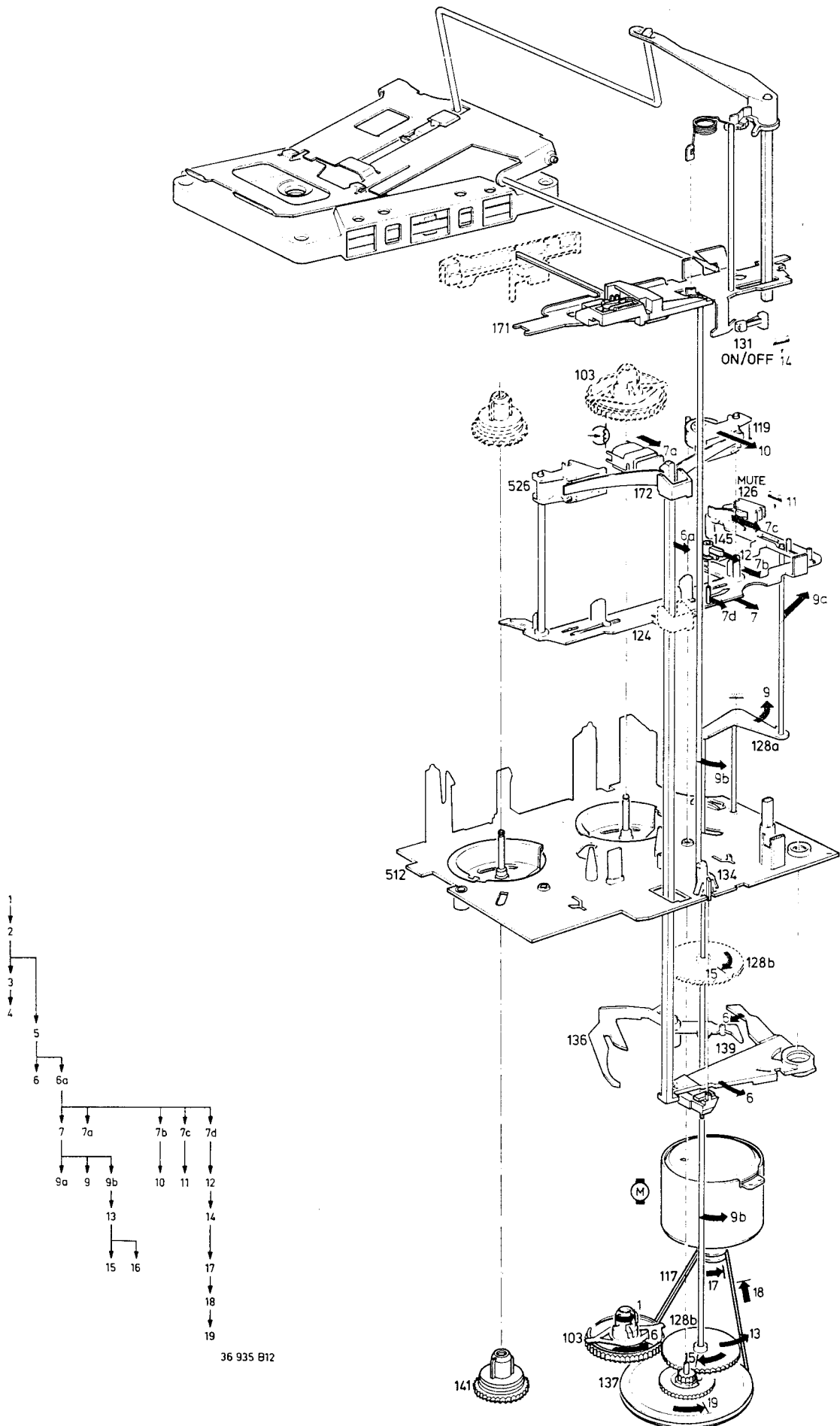


Fig. 2e

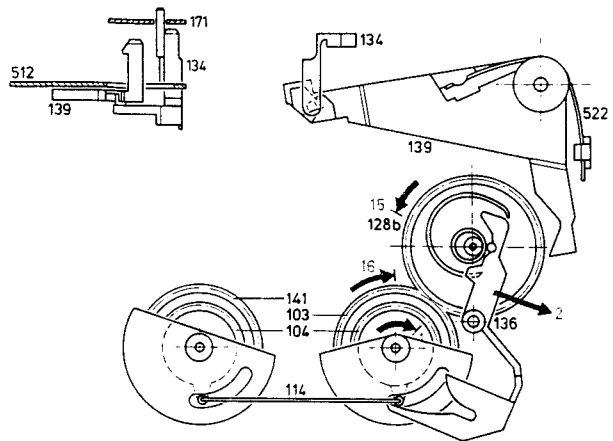
41 751 B12

TAPE END



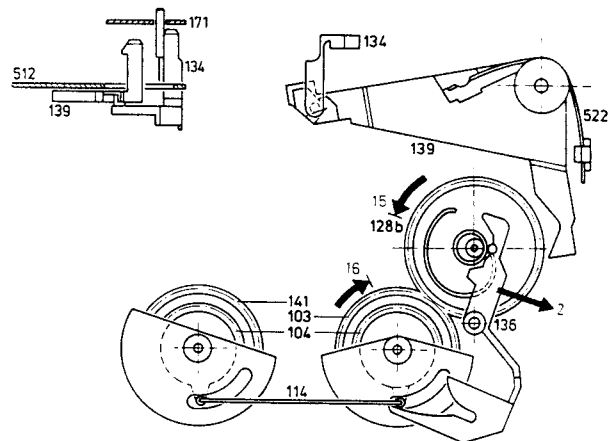
36 935 B12

Fig. 3a



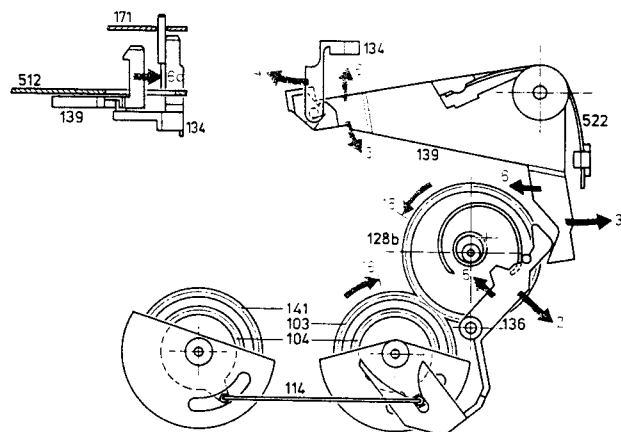
41 754 B12

Fig. 3b



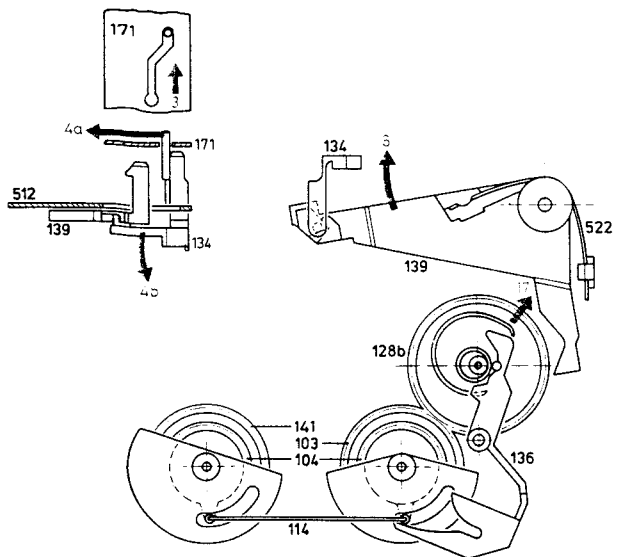
41 755 B12

Fig. 3c



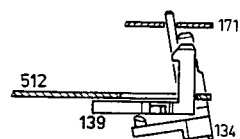
41 756 B12

Fig. 3d



41 758 B12

Fig. 4b



35 769 A7/A

Fig. 4c

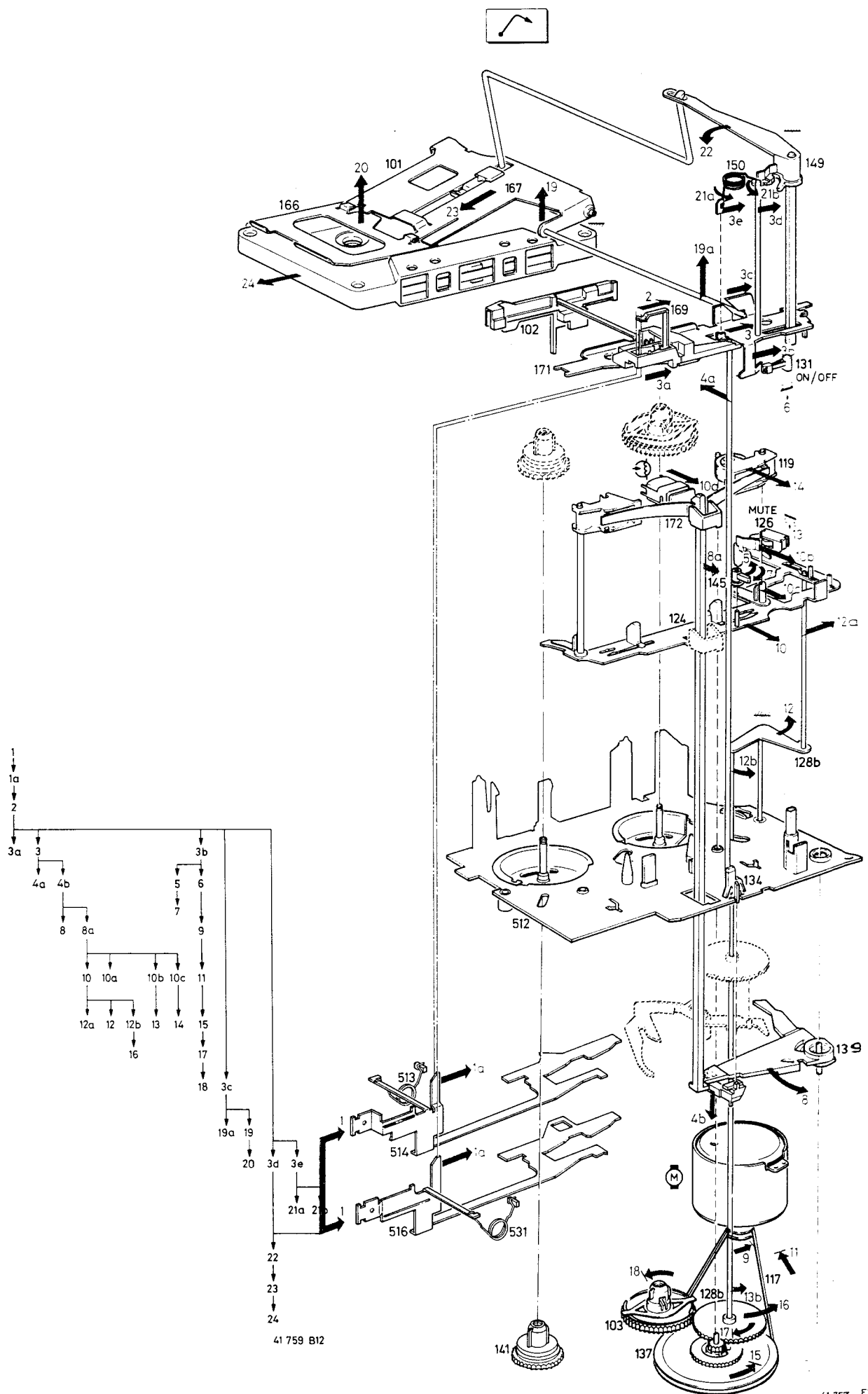
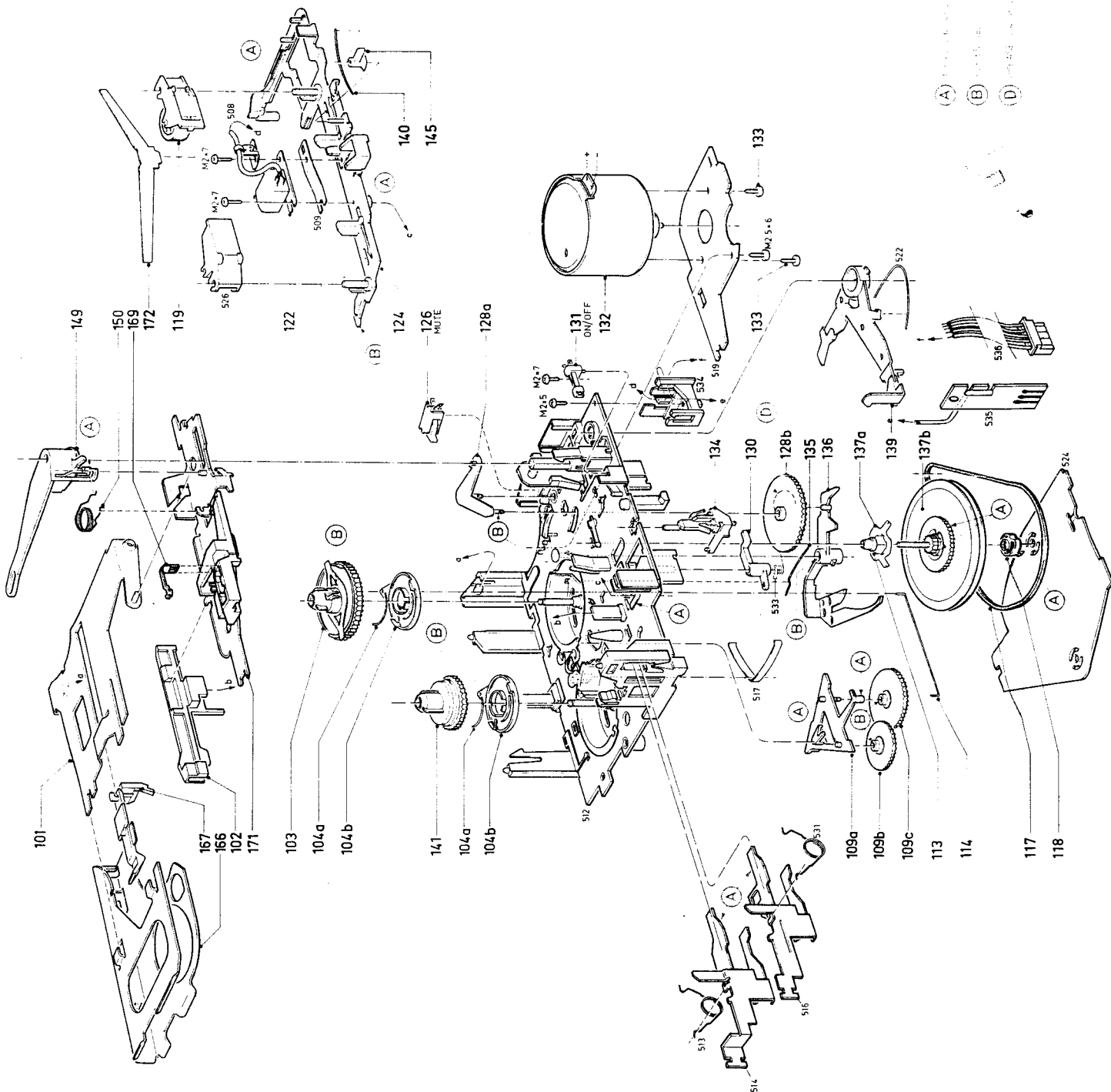


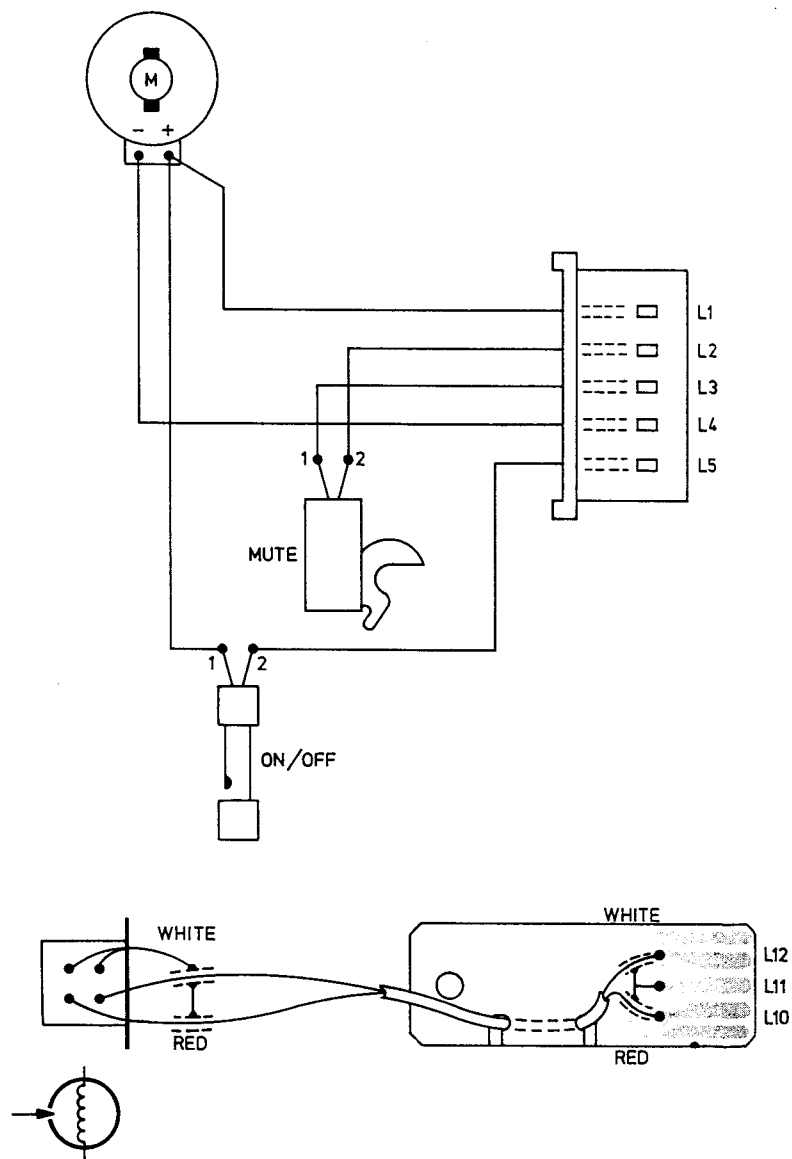
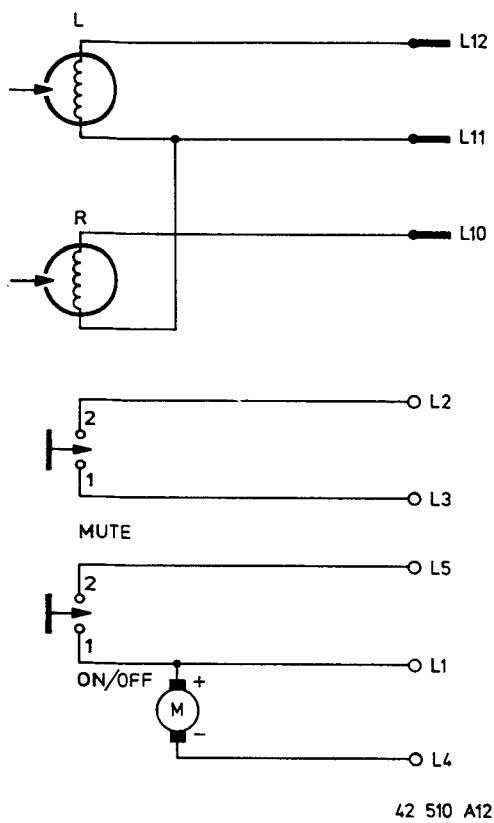
Fig. 4a



Fig. 5



A	4822 390 20128
B	4822 390 10107
D	4822 390 20116
101	4822 466 81479
102	4822 462 30242
103	4822 466 70526
104	4822 466 70527
109	4822 522 20327
113	4822 520 30406
117	4822 358 30429
118	4822 520 30407
119	4822 403 40157
122	4822 249 10195
124	4822 459 80209
126	4822 277 10749
128	4822 522 20326
131	4822 276 11291
132	4822 361 20505
133	4822 502 12548
134	4822 403 10225
135	4822 492 63217
136	4822 403 52031
137	4822 528 80984
139	4822 403 52029
141	4822 528 20399
149	4822 404 20568
150	4822 492 41275
166	4822 404 20593
167	4822 404 20585
171	4822 404 20594
172	4822 492 63216



42 511 B12